

ANNALES
OF
MEDICINE,
FOR THE YEAR 1796.

EXHIBITING A CONCISE VIEW OF
THE LATEST AND MOST IMPORTANT DISCOVERIES
IN MEDICINE AND MEDICAL PHILOSOPHY.

BY
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AND
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FELLOWS OF THE ROYAL COLLEGE OF PHYSICIANS,
EDINBURGH.

In curationibus morborum, illud generaliter desiderari reperio, quod Medici hujusce ætatis, licet generales intentiones curationum non male perfequantur, particulares tamen medicinas, quæ ad curationes morborum singulorum, proprietate quadam spectant, aut non bene norunt, aut non religiose observant.—BAC. DE AUG. SCIENT.

*Parvula (nam exemplo est) magni formica laboris
Ore trahit quodcumque potest, atque addit acervo.—HORAT.*

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P R E F A C E.

TWENTY volumes of a periodical Work, under the title of Medical Commentaries, have been published at Edinburgh, by Dr Duncan sen. It was chiefly intended to exhibit a concise view of the latest and most important discoveries in medicine and medical philosophy, particularly those which tended to improve the practice of the healing art.

A Volume of the Annals of Medicine will now be published every year, on the 1st of January. The plan of this new Work will not differ materially from that of the Medical Commentaries, of which it may be considered a continuation. But the Editors flatter themselves, that, when peace shall again restore free intercourse among nations, the correspondence they have established will enable them to give a better account of foreign medical literature, than the English reader has been hitherto accustomed to meet with.

They also hope, that reflecting practitioners will occasionally use this Work as a

A 2

channel

channel for communicating, to the public, those practical observations and facts which they think worthy of its notice. These may be transmitted either to Dr Duncan at Edinburgh, or to Dr G. Pearson, Leicester Square, London, by whom they will be carefully forwarded to Edinburgh.

The Editors are well aware of the difficulty attending the proper execution of this Work, even under the most favourable circumstances. But their exertions to render it useful shall not be wanting; and they hope for some share of public approbation.

In the present volume, the intelligent reader will find many things well meriting careful examination. Not to mention other particulars, if what is related respecting the effects of the nitrous acid, as observed by Dr Carmichael Smyth, Mr Paterfon, and Mr Scott, shall be fully confirmed by the experience of others, the discoveries of the present period will be entitled to particular notice in the history of medicine.

EDINBURGH, *Jan.* 1. 1797.

CON-

C O N T E N T S.

SECT. I. ANALYSIS OF BOOKS.

	Page
I. Fontaine, F. L. de la, surgical and medical treatises on various subjects, -	I
II. Foder, essay on the bronchocele and cretinism, 17	
III. Wichman, D. I. E. upon the asthma acutum periodicum Millari, and angina polyposa, 30	
IV. Lentin, F. L. B. of the effects of the gratiola in madness, - - -	41
V. Hufeland, C. W. remarks on the dysentery which was epidemic at Jena in autumn 1795, 44	
VI. Girtanner, D. experiments and observations on Beddoes's new method of curing consumption, - - -	53
VII. Fischer, C. E. medical and surgical observations upon London, - -	62
VIII. Brandis, J. D. upon the use of the lukewarm bath in fevers, - -	73
IX. Carmichael Smyth, James, a description of the Jail-distemper, as it appeared among the Spanish prisoners at Winchester, in 1780, 81	

X.

	Page
X. Carmichael Smyth, James, an account of the experiment made on board the Union hospital-ship, to determine the effect of the nitrous acid in destroying contagion, -	103
XI. Bryce, James, an account of the yellow fever; with a successful method of cure, -	116
XII. Paterfon, D. a treatise on the scurvy; containing a new, easy, and effectual method of curing that disease, - -	133
XIII. Davidson, William, observations, anatomical, physiological, and pathological, on the pulmonary system, - -	149
XIV. Reil, Jo. Christ. memorabilium clinicorum medico-practicorum, fasciculus quartus, -	159
XV. Grapengiesser, Car. Joan. dissertatio medica de hydropse plethorico, -	176
XVI. Liljeblad, Sam. usus lapidis suilli in lithiasi renali, - - -	187
XVII. Schmidt, Ern. Fred. dissertatio medica de angina pectoris, - -	198
XVIII. Darwin, Erasmus, Zoonomia, or the laws of organic life, - -	209
XIX. Beddoes, Thomas, considerations on the medicinal use, and on the production of factitious airs, - - -	245
XX. Hamilton, James, junior, select cases in midwifery; extracted from the records of the Edinburgh General Lying-in Hospital; with remarks, - - -	266

CONTENTS.

vii

SECT. II. MEDICAL OBSERVATIONS.

	Page
I. Some cases of biliary obstructions, from calculi, cured by salivation, by Dr Thomas Gibbons, physician at Hadleigh in Suffolk,	279
II. A case of hydrocele cured by injection, communicated to G. Pearson, M. D. by Dr David Hosack of New York, -	306
III. A case of obstinate constipation of the bowels cured by calomel, communicated to Dr Pearson by Dr David Hosack, New York,	310
IV. History of a case of cynanche, attended with symptoms of a high degree of putrescency, where a favourable crisis succeeded a paroxysm of furious delirium, by Dr Andrew Chrichton, of Westmoreland parish, Jamaica, - - - - -	318
V. History of a case of the epidemic fever of Jamaica terminating successfully, in which a very large quantity of mercury was employed without any obvious operation during the fever, by Dr Maclarty, physician, Jamaica,	328
VI. Observations on the epidemic fever of Jamaica; with the history of a remarkable case terminating fatally, in which a great quantity of mercury was employed without any obvious operation, by Dr John Todd, physician, Jamaica, - - -	334

	Page
VII. The history of a singular case of diabetes successfully treated, by Dr Peter Shee, phy- sician at Kilkenny, - -	343
VIII. The history of a case terminating fatally from swallowing a plumb-stone, by Dr George Borthwick, physician, Kilkenny, -	349
IX. Two cases, shewing that the anterior part of the brain may sustain considerable injury without a fatal consequence, by Dr John Nel- son Scott, physician in the Isle of Man, and surgeon to the second regiment of Royal Manx Fencibles, - - -	358
X. History of a case in which singular symp- toms occurred from the swallowing of an iron nail, which remained in the stomach for about fifteen months, by Dr Philip Roberts Wilson, physician at Barnet, - -	371

SECT. III. MEDICAL NEWS. 373

Account of the effects produced on the human body by the internal use of the nitrous acid, and of the benefit derived from it in the cure of diseases, by Mr Scott of Bombay, -	374
Account of the good effects, in the cure of dis- eases, obtained in Bengal, from the use of the toon-tree bark, by Mr John Kennedy, -	387
Account of the progress of Dr Beddoes's pneu- matic institution at Bristol, -	391
Observations	

CONTENTS

ix

Page

Observations, by Dr Withering, on pneumatic medicine, communicated in a letter to Dr Duncan, - - -	392
Extract of a letter to Dr Duncan, from Dr Brod- belt of Jamaica, giving an account of some observations and experiments made on the gas contained in the air-bladder of the sword- fish, - - -	393
Extract of a letter from Mr George Kellie, sur- geon to his Majesty's ship the Iris, containing some observations on the anatomy of the shark, - - -	395
Letter from Dr Richard Pearson of Birming- ham, respecting the good effects of inspiring vi- triolic æther in cases of phthisis pulmonalis, -	401
Notice of intended publications, -	406
Account of prize-questions, -	412
Notice of the death of distinguished medical practitioners, - -	421
List of new Members of the Royal College of Physicians and Royal Society of Edinburgh, -	425
Account of the state of the barometer, thermo- meter, and rain, at London and Edinburgh, during the year 1795.	425

SECT. IV. LIST OF NEW BOOKS,	430
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ANNALS

CONTENTS

1

2

3

4

5

ANNALS
OF
MEDICINE



FOR THE YEAR 1796.

SECT I.

Analysis of Books.

I.

Chirurgisch - medicinische Abhandlungen verschiedener Inhalts Polen betreffend, &c. i. e.

Surgical and Medical Treatises on various Subjects respecting Poland. By F. L. de la Fontaine, Aulic Counsellor and Surgeon to the King, Citizen of the New Constitution at Warsaw, &c. 8vo. Breslaw, 1792. with plates.

ALTHOUGH these treatises are confined almost entirely to those peculiarities in Poland which deserve the attention of a medical philosopher, they must still be inte-

VOL. I.

A

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resting to every one who wishes to prosecute the natural history of man, and the effects of climate, custom, and religion, upon his physical qualities. They are written in the form of letters, without any attention to systematic arrangement; -but they contain a number of interesting facts, and acute observations. We have confined our analysis to the first treatise, written upon that very peculiar disease, seldom seen out of Poland, and hence called the *Plica Polonica*. Our author has collected all the facts respecting it, which have fallen under his own observation, and given us an authentic account of this very remarkable affection, known to us hitherto only from the transient remarks of travellers, or the absurd relations of a credulous people.

Trichoma, or *Plica Polonica*, is a disease endemic in Poland, and the neighbouring countries, in which a morbid matter is critically deposited upon the hair, and binds it together in such a manner, that it becomes impossible to unravel it. This morbid matter is likewise deposited upon the nails of the hands and feet, which then become larger,

larger, thicker, high-backed, deformed, horny, and ill coloured, but by no means black. This disease spares no age, sex, or condition, nor even newly-arrived strangers; nay, infants bring it into the world with them. However, the peasant, beggar, and Jew, suffer most from it. At Cracow, the proportion affected with it in these classes, is two or three in ten, while among the nobles and rich citizens, it is two in thirty or forty. At Warsaw, of the former, four in forty were affected; of the latter, three in ninety or a hundred. Many people never have the disease, others repeatedly, after intervals of some years, during which some remain in perfect health, others constantly unwell. Those who have once had it, frequently relapse; and it is more common in the warm summer-months than in winter. Men are not the only subjects of it, but also horses, oxen, cows, sheep, dogs, wolves, foxes, &c. and particularly those which have long hair. It does not attack the feathered race. Soft light-brown hair is oftenest affected, though no colour is spared. The plica is never white; but when it drops

off in old people, it is sometimes succeeded by white hairs. Experience shews that it is a contagious disease, and very often congenital. Those to whom it is communicated by contact, have it slightly, and are easily cured. It is found from the source of the Vistula (Weichsel, hence its name Weichselzopf) to the Carpathian mountains, Lithuania, White and Red Russia, and Tartary, but is more frequent in some districts than in others. Poles who travel are sometimes affected with it in other countries, and even their children. There is no certainty when or where it first arose; the Arabians, Greeks, and Romans, do not mention it, but some modern writers make the date of its origin 1387, and add, that it came from Tartary.

The symptoms which precede the deposition of the morbid matter on the hair, are very various, and often put on the appearance of other diseases. It sometimes happens suddenly, without any previous symptom. Rage and terror have caused it to appear instantaneously. The longer the morbid matter remains in the system, the more dangerous is the disease. Its most common symptoms are, wandering

dering pseudo-rheumatic pains, which occasion greater danger according to the importance of the part attacked. If the matter be not deposited spontaneously, or with the help of art, on the hair or nails, but on some other organ, it produces occasionally apoplexy, mania, and all the nervous diseases, as well as the various inflammations, particularly of the eyes, glandular indurations, gangrene, and caries, more particularly of the nasal bones and cranium.

The most common symptoms are, a sense of weight and torpidity in all the limbs, pains in the back, giddiness, asthma, ringing in the ears, with an increased secretion of wax, dull pains in the orbits of the eyes, inflammation of the eyes and lacrymal glands, with an augmented flow of tears, headach, violent itching and prickling in the hairy scalp, pain in the præcordia, and melancholy. It is remarkable that many of the patients have an irresistible propensity to the drinking of spirits, and a craving desire for new and strange kinds of food, while they loathe the things they used to relish most. But the most certain signs that a plica will soon

be formed, are clammy tough sweats about the head, with diminution of the pains, and a sensation of tightness, as if the upper part of the head were drawn together. The hairs begin to grow greasy, and acquire a remarkably disagreeable smell. The patient has frequent variations of shivering and heat, and feels an unpleasant prickling cold under his nails. In these circumstances, the crisis takes place upon the hair or nails, or both, and the patient is restored to perfect health, unless in some rare cases, where the crisis is not perfect, and a new deposition is to take place. Sometimes the morbid matter is greater in quantity than the hairs can contain: they then give way, and an immense quantity is poured out between them. It is not true, that the hairs extend so much, that blood flows out of them, or that they bleed upon being cut. If any matter still remain in the system, it is deposited upon the hair of the pubis, under the arm-pits, or upon the nails. If the symptoms continue, a second plica will certainly be formed, but not until the first has separated from the head, and new hair has grown;
nor

nor can we ever be certain that a second one will not be formed, for the disease often takes on a kind of periodic form. A constant sense of cold about the head, and particularly at the temples, is a sure sign of its returning. Sometimes the whole matter is deposited in one half of the hair, the other half remaining sound; in these cases previous symptoms attacked only one side of the body. The peculiar form of the matting depends upon the previous fashion of the hair. Most of the men cut it short and round; the women, on the contrary, have uncommonly long and beautiful hair. The morbid matter is first deposited in the rete Malpighii, from whence it penetrates into the hair, sometimes slowly, sometimes rapidly. The moisture oozing out from the hairs, binds them so together, that it is impossible to separate them again. If the whole hair be affected, it forms a kind of cap; if it flow out only from single hairs, then several rope-like plicas are produced. Some days after it has been formed, it begins to smell something like rancid fat; and upon being touched, causes a pricking, un-

pleasant sensation in the fingers. At the same time, lice suddenly appear in such disgusting numbers, that the patient suffers more from them than from the disease. Mr Fontaine dissected a patient, in whom the plica had come on just before death, and found the bulbs of the hair larger than natural, from which he pressed out a pale-yellow clammy mucus; in another, in whom the plica was already old, he found nothing remarkable.

The symptoms, before the eruption of the matter in animals, must be much the same as in men, for they evidently shew great uneasiness. Dogs have all the signs of canine madness; they hang their tails between their legs, foam at the mouth, do not bark, are apt to bite even their masters, lose entirely their appetite, seem blind, running against the walls, but do not dread water, on the contrary, drink much more than usual; and hydrophobia never arises from their bite. In horses, the plica only happens in their manes or tails. The butchers, tanners, hatters, and horners, are equally cautious not to buy any animal affected with

with the plica, for no part of them can be put to any use.

Our author divides the plica into many kinds, according to their various forms, and into the true and false; which last arises merely from want of cleanliness, in neglecting the combing of the hair, and from anointing it with various oils and fats. When the real plica is separated from the head, the hair, by which it adheres, must form a false one, as it is impossible to comb it out on account of the true one. A new real one may now arise, and so on successively, forming that immense mass described by old authors.

The proximate cause of this disease is, according to M. de la Fontaine, a peculiar morbid matter, which is clammy and acrid, has its seat in the lymph, and is deposited critically upon the hair or nails. Its exciting causes are equally uncertain, for neither the air, water, nor food, seem to have any effect in producing it; nor are cleanliness and regular combing of the hair any defence against it.

In the beginning of the disease, M. de la Fontaine recommends resolvent, attenuant, saponaceous,

saponaceous, demulcent, and emollient remedies, to prepare the morbid matter for the crisis. If these be not sufficient, he adds extract of aconite, or cicuta, calomel, or some antimonial. In general, he says, antimony is as specific in this disease, as mercury is in lues. If it be complicated with lues, corrosive sublimate produces the very best effects; but salivation is highly detrimental in every case. In order to bring about the crisis, he makes use of sudorifics. The lycopodium is praised by old physicians as a specific; but unjustly. These remedies can only be used when no fever is present; in this case, blood-letting and evacuants must be very cautiously used. Our author compares it to the small-pox, where, when the fever is too weak to produce the eruption, it must be increased; when it is too violent, it must be diminished. Hence the strength of the patients must be often supported with generous diet. The people believe in a number of specifics, but the disease has not become less frequent. External remedies are almost always necessary, such as the application of warmth to the head,

head, in the form of vapour, warm bath, or decoctions of various plants; a decoction of soap is often of great use, when the head-ach is violent. Sinapisms and blisters are likewise applied with advantage. If the morbid matter be deposited on the surface of the body, it occasions malignant and obstinate sores, which give a great deal of trouble. Antimony must always be an ingredient in whatever is applied to these. If the matter have a tendency to deposit itself in the nails, it must be encouraged by the application of stimulants; such as, tincture of cantharides, blisters, or by touching a fresh plica with the fingers. Against the vermin, hair-powder rubbed with mercury is the best remedy. If all these means be inadequate to produce the crisis, inoculation of the disease will often effect it. It is performed by putting on a cap which has just been worn by one who has a recent plica.

The plica may, or may not, be cut off, according to circumstances. After a complete crisis, it separates from the head, and remains attached only by found hair. This may take place in a few days, weeks, or months.

months. If it has lost its peculiar smell and greasy appearance, has become dry, and all symptoms have ceased, it may be cut off by dividing the sound hair; for it is remarkable, that even an old plica cannot be cut in the middle without giving pain. The new hair may be washed with warm water, and combed out.

If the plica be new, sit fast on the head, cause a sense of prickling in the fingers when touched, and the symptoms of disease have not yet ceased, it must not be cut off on any account. The most dreadful accidents often arise immediately. Some have become instantly blind, or have died from apoplexy, or in epileptic convulsions. The people are so much afraid of this, that they will seldom permit the plica to be cut off, even when it may be done with safety. If bad consequences follow the cutting off of the plica, the most certain and quickest remedy is, to apply it in its former situation. This must be done before it becomes dry; and it is almost incredible, says our author, that, after one, two, three, or more days, it will again adhere to the head. He does not
maintain,

maintain, that it grows to the stumps of the hair ; but that innumerable examples prove, that a kind of callous is formed, as in a fractured bone. If the plica be not brought to adhere again, the patient, if he survive, remains excessively sick, until the hair grow, and a new plica be formed. The Jews, the most bigotted of all beings, have their own customs and cures: they never permit it to be cut off; and nothing can be more disgusting, than one whose beard and whiskers are affected with this disease. The nails do not separate so readily as the hair, and can only be safely cut off when new nails have begun to grow; and this often does not happen. The Poles believe, that keeping their hair short, or even shaving the head, is a preservative against this disease; but, on the contrary, the men suffer much more than the women, whose hair is long; and it at last affects the hair on other parts of the body, or the nails.

M. de la Fontaine recommends a mild, attenuant, and corrective diet, as in other diseases proceeding from acrimony of the fluids, with the use of ripe fruits. He says, that

that the diet of the common people in Poland consists almost, if not entirely, of vegetables; and he thinks it owing to these, which are generally made sour, that the Poles are so little affected with scurvy, though they live in narrow heated rooms, and drink to greater excess than any people in the world. The nobles and rich live in quite a different style; hard drinking is no longer among them a source of national pride, but the table is covered with all the delicacies French cookery can produce, though not to the exclusion of their *Barszcz*, a kind of sour soup made with groats and sour turnips, to which our author ascribes the most salutary effects, in preserving them from many diseases to which they would otherwise be subjected. To these general observations on the disease, is added the detailed account of about twenty cases, which serve principally to shew the various symptoms which precede and accompany it.

As the rest of these letters are upon subjects entirely local, and interesting only to those connected with Poland, it will be unnecessary to give a detailed analysis here.

We

We shall, however, briefly enumerate the subjects on which they are written.

Letter First. On The principal internal and external diseases prevalent in Poland. The influenza appeared there at the end of March 1788, and ceased about the end of April. The small-pox is dreadfully fatal; and, notwithstanding the philanthropic endeavours of some noblemen, inoculation is by no means general. As Mr von Moneta has lately written a treatise, in which he asserts, that in Poland hundreds of hydrophobic patients are cured with beer, vinegar, and butter, our author thinks it necessary to observe, that neither he nor most of the established physicians have ever met with the disease. This mistake may have arisen from the symptoms which precede the appearance of the plica in dogs; but their bite never produces hydrophobia.

Letter Second. On The venereal disease, and girls of the town.

Letter Third. On The customs and diseases of the Polish Jews.

Letter fourth. On The interment of the dead within the cities.

Letter

Letter Fifth. On The mineral waters and baths in Poland.

Letter Sixth. On The street-beggars.

Letter Seventh. On Quacks and quackery.

Letter Eighth. On The university of Cracow.

Letter Ninth. On The academy at Wilna.

Letter Tenth. On The great hospital and orphan-house of the infant Jesus, at Warsaw.

II.

Essai sur le Goitre et le Crétinisme, &c. i. e.

Essay on the Bronchocele and Cretinism, in which the Causes why these Diseases affect the Inhabitants of Valleys, and the Physical and Moral Means which ought to be employed to prevent them, are investigated. By Dr Francis Emanuel Foderé. 8vo. Turin.

Vide Richter's Chirurgische Bibliothek. &c. i. e. Richter's Surgical Library, Vol. XV. 8vo. Goettingen.

THE usual seat of the bronchocele is the thyroid gland, but it sometimes extends to the neighbouring cellular substance. When the swelling is considerable, it affects the voice, and impedes respiration by its pressure on the recurrent nerve and muscles of the hyoid bone and thyroid cartilage. Our author thinks, that the most probable use of this gland is to furnish a constant supply of fluid for moistening the windpipe, and particularly its upper part, which would otherwise become parched, from the continual passage of the air through it. The

VOL. I.

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epiglottis

epiglottis and arytenoid cartilages have their glands, which furnish them with moisture. The larynx has none; but it is furnished internally with a number of holes, from which mucus may be pressed. It is therefore probable, that these communicate with the thyroid gland, by which the mucus is secreted. Our author at least assures us, that he has injected it with air and brandy through them. Through these openings, he also thinks that air enters the gland on different occasions, as on strong expiration, retention of the breath, &c. and thus gives rise to the wind-bronchocele.

The bronchocele is most commonly found amongst the inhabitants of low valleys, particularly when their dwellings lie at the bottoms of mountains, near rivers or standing waters, surrounded with wood, and much exposed to the south and west winds. It is more common with women than with men; with young, than with old people; with children, than with those who are grown up; with those who have a loose, soft body, than with those whose flesh is firmer, with a thick brown skin.

It

It is remarkable, that women readily become affected with bronchocele, particularly during their pregnancy. In many it arises very quickly, even in the course of a single night, and then it is generally painful. It often grows smaller afterwards; but, when the proper remedies are not used, it sometimes remains during life. In those countries where the bronchocele is not endemic, it generally disappears entirely after delivery, particularly when it was not very large. But when the pregnancies come soon after each other, when in each of them the gland was much swelled, and particularly when the woman lives in a country where the disease is endemic, the swelling around the gland disappears after delivery, but not that of the gland itself. This, on the contrary, becomes more enlarged every time. Moist warmth particularly favours the growth of the crop; and it is usual to observe, that it increases in summer, and grows less, or entirely disappears in winter.

The bronchocele varies much in its size and form. Sometimes it is a circumscribed swelling on the fore-part of the neck; at

other times the whole neck is preternaturally thick, when not only the thyroid gland, but the whole cellular substance, is the seat of the disease. Some have what is called an internal bronchocele, and in these little or no swelling is perceptible.

It is either hereditary, or arises from accidental causes. Our author saw three newly born children with bronchoceles; but it is not often congenital. When people affected with this disease intermarry in a country where the disease is endemic, it is first perceived in the second or third generation, and is then generally united with a tendency to cretinism.

The accidental bronchocele arises sometimes very early. Our author saw a child, in whom it was already perceptible the fiftieth day after birth. The girls get it sooner than the boys. The usual time of its appearance is between the seventh and tenth year; but in some cases its rise may be predicted long before. Such children are commonly beautiful, have a fine skin, with red cheeks, large blue eyes, and light hair. They are also often very lively, and

and walk soon. As soon as the bronchocele appears, every thing becomes changed, the eyes grow dull, the cheeks wan, the breathing and speech difficult, and the child generally remains of a small size. The mental faculties become weak; and, amongst the common people, such a child often approaches to a real Cretin; among the wealthy, indeed, education frequently diminishes the influence of the physical evil.

Several writers confound bronchocele with scrofula. It is not to be denied, that they have great similitude in many circumstances, but in reality they are very different. To both diseases, people weak from age, sex, constitution, or previous disease, the inhabitants of low moist countries are most liable. Children with a very soft flesh, fair hair, blue eyes, and fine skin, are not only most subject to bronchocele, but also to scrofula. They are both sometimes hereditary. Scrofula occasions, in some instances, swelling of the glands of the neck, resembling the real bronchocele; and the two diseases are even occasionally conjoined.

Notwithstanding this resemblance, there

exists the following essential distinction between these diseases. Scrofula depends not only upon a debility of the solids, and especially of the glands, but also upon a thick, ill-conditioned, and acrimonious lymph. It is an universal disease, while bronchocele, on the contrary, is merely a local affection of the neck. Scrofula appears seldom before the age of two years, nor after that of ten or twelve. It grows less, and even disappears, when, from increase of years, the body becomes stronger and firmer, particularly about the age of puberty, and after the appearance of the menstrual discharge. Bronchocele occurs sometimes soon after birth, generally between the seventh and tenth year, but also at every other period. It arises from accidental causes. A strong healthy person becomes affected with it, by living a few years where it is endemic. Scrofula never arises so. Bronchocele may be perfectly cured, if the patient only changes his place of abode. It requires merely resolvent remedies; scrofula, these also, at times, but much oftener roborants.

Where bronchocele is endemic, it is usual-

ly

ly ascribed to the drinking of snow-water, but falsely. In those very countries nearest to the glaciers, where the snow and ice water streaming from them is drunk, it is very rare. This water does not come into the country where bronchocele is common, till after it has run a considerable way through rocks, woods, and meadows.

Others believe, that it is to be ascribed to the selenite contained in the water drunk. But this is likewise doubtful. The water, which is drunk in those countries where it is endemic, contains, according to the experiments of our author, much less earthy matter, than in many other parts of Savoy, where it is unknown. There are countries in Savoy, where the water is fully saturated with selenite, and where bronchocele is nevertheless rare. That stony concretions are sometimes found in bronchoceles, proves nothing. They were certainly not deposited there from the water drunk.

The cause of this disease has been even thought to be the frequent use of coarse earthy food. It is true, that in that part of Savoy where it is most common, the pea-

fants live chiefly upon chesnuts, and other such coarse substances. But there are also other districts of Savoy, where the common man bakes his bread only twice in the year; and, except this bread, which he must break with the ax, he never tastes any thing but potatoes, pease, lentils, and, at the utmost, a piece of hard, smoked meat; and yet we find there, neither bronchocele nor cretinism, but strong healthy people. In some mountainous places, they live almost entirely upon cheese, and yet have no bronchocele; which, on the contrary, (in countries where it is endemic), sometimes deforms the wealthy master of a plentiful table.

Dr Foderé considers the moist, warm air, which is always found in the valleys where bronchocele is endemic, as the principal cause, both of it and of cretinism. On examination, the greater or less moisture of the air will always be found to bear a proportion to the frequency of the disease. The situations in which it is most common, are always narrow and deep vales, with running or standing water, and ever-green trees, warmed by the reflection of the sun's rays,

rays, so that the inhabitants live as if in a vapour-bath. That this warm moisture is the real cause of these diseases, is rendered more probable from the following reasons: Weak people have bronchocele more frequently than strong people, women than men, children than adults, these than the aged. It generally increases in summer, and diminishes in winter. As we leave the low valleys, and approach the higher and more open situations, bronchocele, and in general all diseases of debility, are more rarely observable.

It will indeed be said, that there are many countries where the air is very moist, in which this disease is not endemic. But it must be remarked, that these are not confined, but open and free countries, over which the wind blows unimpeded.

A number of remedies have been at all times recommended against this disease; but it will be found, that they all contain an alkali, and are consequently resolvents. Among these, none is so celebrated or common as burnt sponge. Perhaps, if it were not burnt, but given in decoction, as Herrnschwand

recom-

recommended, it would be still more efficacious. Our author has always given it half burnt, mixed into an electuary, with some cinnamon and honey, and with constant success. The patient takes the size of a nut three times a-day, until the bronchocele disappears, which commonly takes place within fourteen days. He has also used soap successfully; and when neither the one nor other of these remedies were of service, he gave sulphurated potash, dissolved in water. The dose was daily thirty grains, dissolved in a bottle of water, continued until the cure was effected.

During the use of any remedy, it is always adviseable, that the patient take, at the beginning, and every fourteen days afterwards, a laxative; that he do not swallow the remedy immediately, but hold it some time in his mouth, because experience has shown, that thus the remedy acts much more strongly and quickly; and, lastly, that the patient always keep the bronchocele covered and warm. The author thinks, that the medicine has more effect when it is taken during the wane of the moon. With children,

children, who do not readily take internal remedies, external ones may be employed. Sometimes frequent rubbing with dry well-smoked cloths, or saponaceous remedies, or camphor-salve, is of great advantage. It is very probable, says our author, that the internal remedies against bronchocele do not get at the place of their intended operation by the common way, but are immediately carried by the lymphatics of the mouth into the gland; for experience really shews, that these remedies operate much more quickly, when the patient holds them some time in his mouth, than when he swallows them immediately; and they sometimes remove a bronchocele in so small a quantity, and in so short a time, that it is scarcely possible to believe that they operate through the medium of the whole mass of fluids.

From the above-mentioned remedies, success can only be expected when the bronchocele is not large, old, or very hard. If it is so, our sole reliance must be on surgical means. When it has a small basis, there is no doubt but that its extirpation may be undertaken

undertaken with hopes of success. But if it be separated into several knots, connected by a broad basis, spread out on both sides of the neck, and surrounded with large varicose vessels, the operation can hardly be attempted.

Our author has seen the operation twice performed successfully in the following manner.

The surgeon first made a crucial incision through the skin, and laid the gland bare. As soon as he met with an artery, he tied it directly. He now divided the bared gland, to see whether it was schirrous or not. In the latter case, he had nothing to do, but, by repeated pressure on both sides, and frequent stroking, to force out the mucus accumulated in the gland, which terminated the operation. To prevent a new accumulation and swelling, he carefully destroyed all the cellular substance between the gland and the skin. A very hard cicatrice usually followed, which prevented a new swelling from arising. But if the gland be really schirrous, it must be completely extirpated, and every vessel, which bleeds, immediately

mediately tied. This operation, however, requires great caution, and a practised hand. If the operation is not performed, a seton may be drawn through the tumour. Our author advises it to be inserted from the above downwards. The pus has thus a better passage, and the great vessels and recurrent nerve are more easily avoided. The cord may be covered with an ointment, containing some lapis causticus.

III.

III.

*Ueber Asthma acutum periodicum Millari;
und Angina polyposa membranacea.*

*Upon the Asthma acutum periodicum Millari
(the hives); and the Angina polyposa
membranacea (the croup). A diagnostical
fragment, by Dr J. E. Wichmann, Phy-
sician to the Elector of Hanover.*

*See Journal der practischen Heilkunde, &c.
i. e.*

*Journal of Practical Medicine and Surgery,
published by C. W. Hufeland, Professor of
Medicine at Jena. Vol. I. 8vo. Jena, 1795.*

THESE diseases have been almost uni-
versally confounded with each other,
which has given rise to the constant dispute,
whether they were spasmodic or inflamma-
tory. The present Essay is likely to decide
the question, by shewing that they are
really

really two different diseases. Their great similarity, their usually attacking children, who cannot describe their sensations, and their rapid termination, render the diagnosis extremely difficult; and yet an immediate decision is no where more necessary, since the most vigorous means for the recovery of the patient must be used on the first or second day. Previous to pointing out the diagnosis, Dr Wichmann describes both diseases at full length, from his own observation, forgetting for the moment that he had read the authors who have treated of them.

The asthma of Millar is not a chronic disease, as might be concluded from its name, and differs from all other asthmas, in affecting, almost solely and exclusively, children; while they attack only old people. Dr Wichmann has seen but one example of an adult, a woman of forty years, labouring under this disease. The children attacked by it, all enjoyed, a short time before, a state of perfect health, and were between two and seven years old, one only still at the breast. The disease comes on gradually, under the form of a common catarrh, with little fever,

ver, without vomiting or shivering, symptoms which commonly precede important diseases in children; so that they can remain out of bed, and even go abroad, during the first day. It, however, suddenly changes, during the first two days, into a violent straitness of the whole breast, and the little patients express their uneasiness by anxious motions and restlessness. Cough is seldom, if ever present, or considerable. But the symptom distinguishing it from all other affections of the breast, is the hoarse voice, and its remarkably peculiar sound, during the laborious respiration, so hollow, of so deep a bass, and so loud, that it may be heard several yards from the patient. This hollow tone might alone shew, that very little mucus is collected in the lungs or trachea; the patients, besides, expectorate nothing; and as little flows from the nose, which, like the tongue, is dry. These symptoms might lead an observer to think, that it was merely a catarrh, which had become peripneumonic, particularly as, according to our author's observation, it seems to be produced always in winter, and by catching

catching cold. But it may be distinguished by the incomparably greater difficulty of respiration, and by the gradual diminution of this and all other troublesome symptoms, after they have continued some hours. The child now breathes with greater ease, lies quietly upon its back, speaks and plays, though with indifference, and the disease seems to be a common catarrh, deserving little attention. But woe to the physician who is deceived into security by the natural and soft state of the respiration! For scarcely has the remission, with this appearance of a fortunate change, continued twelve, or at the utmost, twenty-four hours when the difficulty of respiration comes on in a greater degree than before, attended with increase of fever, and a small and quick pulse; the child now runs the greatest danger of suffocation, and indeed sometimes dies; the face grows red, and with every respiration the trachea is drawn downwards, or rather the shoulders are elevated: all the muscles which have the least action in respiration, and even the abdominal, are set into the most violent motion, and their whole powers are

exerted by the child to draw and retain breath; the nostrils are more expanded than in any other disease; even the small muscles of the face are contracted: the child is covered with a profuse sweat, and, in this deplorable state, varies its attitude, in the vain hopes of relief, and sometimes in despair tears the hair from its head; at last it becomes blue in the face, and particularly in the lips; it loses breath so much, that it can hardly speak; and, in this dreadful situation, it is still less able, from the rapidity of its respiration, to drink or suck. A real obstruction to swallowing in the pharynx, or œsophagus, exists as little here as in the croup; it seems as if the lungs were spasmodically contracted, and thus did not admit of the least expansion. If the child is able to explain its sensations, it complains of no pungent local pain, but of one which is dull, and spread over the whole breast. If, in this situation, it do not receive the necessary help, if its physician endeavour to evacuate the mucus, and aid expectoration, and if he treat the disease with antiphlogistic, resolving, or similar remedies, the dreadful breathing may diminish

nish once more, not from the action of the medicines, but because it is the course of the disease. For, in the next paroxysm, which now comes on much sooner than the former one, the excrement is passed involuntary, although the child retains consciousness to the last; the pulse becomes smaller and quicker, sometimes intermittent; the anxiety changes into struggles of death, and the child expires within eight days from the beginning of the disease, from the want of air, in the strictest sense of the word; it dies a death, in comparison of which drowning must be soft and speedy. The first case of this kind occurred to our author in 1770, and was treated as an inflammatory disease of the breast, but in vain. In this case dissection shewed the trachea and lungs perfectly natural. To Millar's Work, which soon after came into his hands, he confesses that he is indebted for losing only one child afterwards, when called in time. Dr Wichmann has always treated it since that time, as a spasmodic disease, with musk, which he recommends, in this case, as a remedy as certain and specific

as any we are possessed of against any disease.

In the croup, the patients, generally children, have likewise a difficult respiration, accompanied by violent fever. This difficulty of breathing is, however, occasioned by an obstruction in the upper part of the windpipe, and constriction of the glottis; so that the sound of the breathing is not, as in Millar's asthma, hollow, like the barking of a large dog, but small, shrill, and crowing, something like the cry of a sow when frightened. It is also observable at a greater distance from the patient, and especially remarkable in coughing, deep respiration, or speaking. The children are likewise attacked in the beginning with a far greater degree of fever, lie continually sick from the first; and though the symptoms of anxious, oppressed, and quick respiration, are not quite so dreadful, on the other hand, they continue without any remission of their severity. The cough here is not of the common catarrhal kind, nor so dry as in Millar's asthma. The child does not become, from the pain, blue in the face, but merely redder

der than natural, and the lips are brown, as in fever; it sweats more in the beginning, which only comes on in the latter stage of the other disease. The child endeavours, more than in the other complaint, to obtain ease by coughing, to get rid of the obstruction to its respiration. It sometimes expectorates mucous, pasty, tough, rarely purulent matter, and sometimes long pieces of an actually formed slough, by which it is often saved. It has not, in swallowing, any difficulty, except what is occasioned by the quick respiration; and sometimes finds its breathing eased, by bending back, or laying down its head; whereas, in Millar's asthma, the upright position is the easiest. The croup also increases constantly in violence, and the patient often dies, however well treated, possessed of perfect consciousness, and rarely convulsed.

Although, from these descriptions, the diseases may be readily distinguished; yet, for the sake of perspicuity, Dr Wichmann has brought their various symptoms under a closer comparative view; and as accurate diagnosis appears to us to be the founda-

tion of success in practice, we shall also follow him in this part of his Essay, in spite of the frequent repetitions it occasions.

a. Both diseases agree in beginning in so slight a manner, as often to lead the physician to think them simple catarrh.

b. Although Millar's asthma sometimes attack adults, yet children are in general the victims of both diseases.

c. The patients die in both diseases equally soon. But when a child dies suddenly, from an attack of difficult respiration, we may conclude that it has died rather of Millar's asthma than of the croup.

d. Millar's asthma is never epidemic, but always sporadic ; it arises, however, like the croup, in cold weather, and generally from catching cold ; and Dr Wichmann says, he might add, during the blowing of easterly winds. Home found the croup frequent on the sea-coast ; Ghisi, epidemic in Italy in 1749 ; Rosenstein, and others, in Sweden, and von Bergen almost so. Therefore, when several children at the same place lie ill of a suspicious difficult respiration, and we have no right idea of the disease, it is much more probably

probably of croup, and we should have recourse to resolvents, until the diagnosis become clear. Dr Wichmann says, that from his own experience, he has no evidence that croup is contagious, but that its probability rests upon what others have said; whereas Millar's asthma is certainly not contagious.

e. The difficulty of swallowing, in both diseases, is occasioned only by the patient's not being able to retain their breath long enough, without danger of suffocation. However, in croup there is a dead pain at the top of the windpipe; and Home discovered a slight swelling there; which is never the case in Millar's asthma.

f. Dissection points out the diagnosis most certainly, but too late to be of any use. In the croup, a collection of mucous, sometimes purulent, but generally sloughy matter, is found in the windpipe, and sometimes even in the bronchiæ.

g. During the life of the patient, the peculiarity of sound in respiration, is one of the most certain distinctions. The cough is also different; in Millar's asthma, it is at

most inconsiderable ; but in the croup, it seems as if something were loose, and should be coughed up, which often happens to the relief of the patient ; it is also much more frequent, and continued even to vomiting, and is increased from taking in aliment ; so that on this account also children refuse to swallow.

b. Lastly, The course of these diseases is quite different. In Millar's asthma, the symptoms remit, and again return with greater violence than before ; whereas, in the croup, they come on gradually, and continue constantly increasing ; and the urine is not, as in the other disease, pale.

Dr Wichmann concludes this accurate Essay, with lamenting, that he has not so certain a remedy to recommend against the croup, as musk is against Millar's asthma ; for here it does no good. Hence, though similar, these diseases require different treatment.

IV.

Von der Wirkung der Gratiola im Wahnsinn; i. e.

Of the Effect of Gratiola in Madness, by L. F. B. Lentin.

See Journal der Practischen Heilkunde; i. e.

Journal of Practical Medicine and Surgery, published by C. W. Hufeland, Professor of Medicine at Jena, Vol. I. Jena, 1795.

DR LENTIN observes, that, although we have deserted the use of hellebore in madness, it is still an axiom among old physicians, to treat that disease in most cases with emetics and purgatives; and that we are only too timorous, or too bold, in our choice of them. Our author has been so fortunate, as to derive great advantage, in three successive cases, from the powder of Gratiola.

Two of the patients were brothers, whose father was not actually mad, but only crazy. Their uncle was completely deranged,

ranged, and continued so till his death, in his 65th year. Both brothers were seized, at an early period of life, after unusually hard study. Praise and reward sharpened their desire of honour; and, redoubling their industry, they denied themselves sleep, and every invigorating recreation. A mistaken enthusiasm prevailed over reason, and would not listen to any remonstrance. At first every action perfectly resembled Addison's description of a dream: "The soul, in dreams, " converses with numberless beings of her " own creation, and is transported into ten " thousand scenes of her own raising. She " is herself the theatre, the actors, and the " beholder;" and besides, the patient always plays the most important and conspicuous part. Every thing passed hitherto pretty quietly; the nights alone were sleepless, and spent in frequent changes of ideas. At last the delirium of one of the brothers increased so much, that he attacked his mother and attendants, and leapt out of his window, though without being materially hurt. Dr Lentin did not observe in him the symptoms described by Auenbrugger, the retraction

tion of one or both testicles, which is said to take place.

The patient was at first copiously bled; and as none of the usual remedies were strong enough to procure the necessary evacuations, he was made to vomit with from three to five grains of white vitriol, after he had gotten a stimulating clyster. Dr Lentin now prescribed for him half a scruple of powdered Gratiola every morning, and as much every evening, with a decoction of grass-root for his drink. This was continued, until the returning irritability of the viscera rendered a diminution of the dose necessary. After the evacuation of a great quantity of bilious matter, he was completely restored; as were also the other two, by the same method of treatment. They were all of a temperament which indicated the use of strong stimulating remedies.

V.

Bemerkungen über die in Herbst. 1795, in und bey Jena ausgebrochne, Rubrepidemie, und der ausgezeichneten Nutzen der Nux Vomica in derselben ; i. e. Remarks upon the Dysentery, which was epidemic at Jena in autumn 1795, and the distinguished good effects of the Nux Vomica in it. By Prof. C. W. Hufeland.

See Journal der Practischen Heilkunde, &c. ; i. e. Journal of Practical Medicine and Surgery, published by C. W. Hufeland, Vol. I. Jena, 8vo. 1795.

DYSENTERY is a disease extremely uncommon at Jena, on account of its mountainous and dry situation, but a concurrence of circumstances produced it in autumn 1795. After a very hard winter, the country was repeatedly overflowed. The summer was cool, rather than warm and moist. During the harvest, in the beginning

ginning of August, eight days of violent heat, with cold nights, came suddenly on, and exactly at this time the first traces of dysentery appeared. Much unripe fruit was eaten, and also potatoes, although the too early use of the latter is forbidden, both in the Duke of Weimar's and in the Prussian territories. The number of sick increased till the end of September; but in October, which was warm and pleasant, it decreased. In the city, it only affected the poor; in the country, it was more common and dangerous. This Essay is the result of observations made on about 140 patients.

The disease generally came on suddenly, but was sometimes preceded by diarrhœa, pains in the stomach and bowels, &c. Its constant symptoms were, violent pain in the bowels, particularly at the navel and stomach, continual necessity of going to stool, painful tenesmus, accompanied by a mucous or bloody discharge, small indeed, but sometimes so frequent, that the rectum hardly ever ceased to evacuate. Fever was very seldom entirely absent; it sometimes came on in the beginning, sometimes after several days,

days, and generally kept pace with the state of the other symptoms. The tongue often remained quite clean, and some patients never lost their appetite. The skin was commonly dry, and the heat moderate. The strength seemed to depend entirely on the quantity of matter evacuated. In a few days, a patient might be exhausted, even to death; but if the evacuation ceased, the recovery was equally rapid. The duration of the disease varied, from two days to as many weeks, and relapses were extremely frequent. It was most dangerous in persons enfeebled by previous disease or old age, in pregnant women, and in weakly children, especially those affected with worms, or who were teething. When the evacuations were very foetid, and continued to increase in quantity, and the pulse in quickness, when emetics did not operate, when the patient vomited spontaneously, with an increase of the other symptoms, when the abdomen was hard and distended, with a fixed pain and sensibility to external impressions, small pulse, and coldness of the extremities, when aphthae appeared in the mouth and rectum, the prognosis

nos is was unfavourable. The good signs were, a soft and moist skin, a decrease of the evacuation and tenesmus, feculent stools, recovery of appetite, the ready action of narcotic remedies, and the mental and corporeal powers not sinking suddenly. Death happened either from mere exhaustion of strength, from the inflammation, or was preceded by symptoms of putrescency.

Professor Hufeland thinks, that the proximate cause of the dysentery consists in a convulsive, increased irritation and oscillation of the large intestines, particularly of the rectum; that it is a merely local disease, and differs from gonorrhœa and catarrh only in its seat. Fever is not an essential symptom, but is easily excited, on account of the importance of the organs affected. Our author saw several cases where the symptoms remained entirely local during the whole time.

The causes producing an increased action of the intestines, may be either a stimulus, acting on these parts, or an augmentation of their irritability. The stimulus may be either topical or sympathetic. But the cause of
primary

primary and epidemic dysenteries is to be found, Professor Hufeland thinks, in the action of continued warmth, followed suddenly by moist cold. The heat increases the action of the superficial vessels, and augments the flow of fluids into them; in the same proportion, it exhausts the internal parts, and weakens the organs of digestion; by being continued, it acts upon the constituents of our body, causing new combinations and evolutions of stimulating and acrid matters, particularly in the perspirable matter and bile, and gives them a tendency to the surface. In this state is the body, when cold and moisture are applied; the habitually increased action of the skin is suddenly oppressed, and reflected upon the intestines from natural consent of parts, and their previous debility; the acrid matter of the perspiration is now thrown back upon them, and the consequence is cholera or dysentery, as the upper or under part of the intestines is affected. But this topical disease can have many complications, degrees of violence, and effects. It generally excites fever, which may be inflammatory or typhoid,

phoid, and must be treated with blood-letting or bark accordingly. When speaking of its various complications, our author gives his opinion of its contagious nature. Among the poorer class, where four or five patients lay in one narrow room, where, from want of help, the stinking stools were not removed, and the air became absolutely pestilential, the disease took on a putrid character; and in this state, he is convinced, that a contagion may be produced and communicated by the matter evacuated, so as to create a contagious dysentery. The disease was absolutely communicated in several unfortunate instances, by the unpardonable application of a clyster-pipe to healthy people, after it had been used with the dysenteric patients.

In his method of cure, Professor Hufeland followed three different indications.

1. To allay the violent and spasmodic irritation of the intestines.
2. To increase the flow of fluids towards the skin.
3. To cure the complications, and take away additional irritating causes.

To fulfil the two first indications, our author chose the *nux vomica*. The treatment was almost uniformly the following: If called early, he found great service from giving one scruple of *ippecacuan*; not with the sole view of evacuation, but more as an antispasmodic, acting directly upon the intercostal nerve, which is here particularly affected. Immediately after the emetic, a mixture, with the *nux vomica*, was prescribed.

R. Extr. Nuc. Vomic. grana decem.

Muc. Gummi Arab. unciam unam.

Aquæ fontanæ, uncias sex.

Syr. Alth. unciam unam.—Misce.

Signature. Two table-spoonfuls to be taken every two hours. Injections with the *nux vomica* or opium, were given once or twice a-day, and the patient was desired to use mucilaginous drinks, and to keep himself warm. In most cases, a cure was effected the second or third day. In whatever manner the disease was complicated, the *nux vomica* was always the principal remedy; and he assures us, that, when properly

perly used, he did not lose a patient, in whom the disease was not complicated with convulsions from teething, very great age, or some other considerable evil. Its principal effect is narcotic. A woman, by mistake, took six grains of the extract at once, six hours after she had already taken three. She was seized with such weakness in her limbs, that she could not stand, universal trembling, giddiness, stupidity, anxiety, and a small intermittent pulse. In the stomach and bowels she felt no heaviness, pain, or sickness. After she had lain quiet some hours, swallowed a large quantity of tea, and got a vinegar clyster, these symptoms went off without having produced any other consequence. It is likewise astringent and bitter, and therefore tonic. Professor Hufeland recommends to the apothecaries not to buy it ready powdered, as the druggists generally roast it first, which hurts it very much; but first to rasp it, then wet it with mucilage of tragacanth, and dry it again, which will much facilitate the pulverisation. Professor Hufeland prefers the extract, as the powder is more disagreeable, and

sometimes affects the stomach. For adults, the dose of the powder was from six to ten grains thrice a-day; of the extract, one or two grains every three, and in violent cases every two hours. Some people have taken ten or twelve grains in twenty-four hours, before they were affected with giddiness. Children of one year took one or two grains in the course of twenty-four hours, in some mucilaginous mixture. In clysters, three or four grains of the extract were given. An injection, with eight grains, brought on vertigo and stupidity.

VI.

Vesuche und Beobachtungen ueber die neue Methode des Hrn. Beddoes die Lungen-schwindsucht zu heilen, &c. ; i. e. Experiments and Observations upon Beddoes's new method of Curing Consumption, with the description of an Apparatus for the Respiration of Gases. By Dr Girtanner, of Goettingen.

See Journal der praetischen Heilkunde, i. e. Journal of Practical Medicine and Surgery, published by C. W. Hufeland, Professor of Medicine at Jena, Vol. I. 8vo. Jena, 1795.

THE writings of Dr Beddoes, and the hopes of giving relief in this dreadful disease, induced Dr Girtanner to make similar experiments, especially as he was not satisfied with the practical part of Dr Beddoes's Work, because attention had not been paid to the different species of consumption, to the stage or cause of the disease, because the hi-

stories of the cases were not sufficiently accurate, and because the carbonic acid, azotic, and hydrogen gases, were indiscriminately recommended.

The difficulty of providing a fit apparatus was surmounted, by making some alterations on that described by Dr Menzies, in his inaugural dissertation. Dr Girtanner has given a full description and plate of it, and adds, that it has been approved of by every one who has tried it.

To proceed methodically, he resolved to make a series of experiments with one kind of gas, and he selected the carbonic acid gas, because it is specifically heavier than the atmosphere, and will therefore sink to the bottom of the lungs, so as not to be immediately expired again; because it has been found, by the experiments of Ingenhous and Beddoes, to diminish pain, and promote the healing of wounds; because it is easily prepared without expence or fire; and, lastly, because the use of hydrogen gas is attended with danger, if expired near a candle, from its conversion into hydro-carbonous gas.

On

On the 3d of April 1795, Professor Hofmann carried Dr Girtanner to see a student of twenty-three years of age, with whom he wished the new method to be tried. The patient lay upon a sofa, unable to raise himself up; his countenance was fallen, his whole body extremely emaciated, his tongue of a bright red colour, his hands burning hot; his pulse 120 in a minute, and his voice hoarse and weak. He complained of violent cough, which deprived him of sleep all the night, and troubled him much through the day. His expectoration was copious, tough, thick, and of a sulphur colour. During the night, he sweated so much, that he said he felt as if he lay in water. He had also a violent colliquative diarrhœa, and occasionally bleeding at the nose, which it was difficult to stop. Upon inspiring deeply, he felt severe pain in the right lung. He was first affected a year and a half before, after cold, and was daily growing worse, though he had followed the advice of two of the most celebrated physicians at Goettingen, who had now given him over.

In the evening, Dr Girtanner made him breathe a mixture of one quart of carbonic acid gas, and two quarts of atmospheric air. After lying a few seconds without motion, he said, he felt as if relieved of a weight, which till now had pressed upon him; he could breathe more freely, and he felt in the right lung, a soft warmth and pleasant tickling. In a quarter of an hour, he breathed a second portion, and in half an hour the third. He was ordered to live upon smoked and salted meat, abstaining from all vegetables, and to drink water and beer, but no wine. No other medicines were prescribed.

Till the 7th of May, he breathed three portions of the above-mentioned mixture twice a-day. Afterwards it was increased to four portions each time. Until the beginning of May, he continued to recover: his appetite returned; he slept tolerably quietly the greatest part of the night, and without much coughing; his expectoration was diminished and less yellow; the bleeding at the nose had not returned; the hectic fever was slight, and lasted but a few hours;

hours; he was less emaciated, and could walk about his room and amuse himself. His pulse alone was not better. It was still small and hard, and beat from 120 to 130 in a minute.

During the beginning of May, his recovery was almost stationary, which was however found to proceed from mental, and not physical causes. On removing them, he got so quickly better, that Dr Girtanner discontinued, on the 6th of June, the use of the gas. He now slept well, had no night-sweats, his cough was dry; his pulse in the morning 90, and in the evening 100 or 120; the red in his cheeks, and burning of his hands, had disappeared entirely, and he was able to walk abroad two or three hours at a time.

On the 3d of July, he was permitted to return to his common diet, as he was tired of salted meat, and complained that it made him cough.

On the 4th, after walking when the weather was cold and moist, he was seized with a cold fit, and coughed the whole night; but,
in

in the morning, complained only of coldness.

On the 8th, he began again to use the gas. He now took twice a-day four portions, composed of equal quantities of atmospheric and carbonic acid airs.

On the 9th, he observed, that his left lung was now affected, while the right seemed sound. The pain in the left side went off, however, after using his gas mixture two or three days. To mitigate the cough, he now took, for some days, a weak opiate at bed-time, and from this time he recovered rapidly.

About the middle of August, his cough ceased, his pulse was soft, and beat from 70 to 80 in a minute; he gained strength and appetite, slept well, and complained of nothing, except a trifling cough. On the 27th of August, he found himself strong enough to leave Goettingen, and to undertake a journey of about eighty miles on foot; which he performed, and is now, Dr Girtanner has heard, very well.

The noise which this cure made, induced Professor Richter to make a trial of the
same

same method, in his clinical institution. The patient with whom it was tried, in general, breathed more freely for a short time after he had used the air. But it was unable to effect a cure; and, on dissection, the lungs were found completely suppurated with many small tubercles full of pus.

A man of about forty, extremely thin, had been affected for four months with an obstinate dry cough, which did not yield even to opium. As he assisted Dr Girtanner in his experiments, he was often obliged to respire some carbanic acid gas; and in fourteen days his cough left him, and never did return.

Dr Hempel, a practitioner at Goettingen, also employed it in one very far advanced case, without success. The inspiration of the gas immediately brought on a sense of weakness; the patient's breathing became shorter, attended with anxiety and faintness, the pulse small and unequal. In a few minutes these symptoms ceased, and he noticed a sour taste in his mouth, and a burning sensation in his breast. The lungs seemed in a few days to become accustomed to the
gas,

gas, for it did not produce these effects any more. The mixture was made stronger, and it again brought on the same symptoms, but they were now stationary, and ceased only with the death of the patient.

The celebrated Ehrhart of Hanover used it also in his own case, under the direction of Dr Wichmann. Unfortunately for botany, he found no benefit from it, but was obliged to give up its use after a few days trial, as it evidently increased his symptoms.

Dr Buchner of Hilburghausen was equally unsuccessful in a trial he made of this method of cure. It seemed to increase the difficulty of breathing; and indeed, the dissection clearly shewed, that the disease was such, that, to use the Doctor's words, a new set of lungs could be the only cure.

From these cases, Dr Girtanner concludes, that the respiration of carbonic acid gas is a very active remedy, which in some cases is of great service, is of no use in others, and is even sometimes hurtful; and he calls upon the practical physicians of Germany, to determine each of these cases, by means of farther experiments.

Dr

Dr Girtanner promises to take another opportunity of relating his trials with azotic and hydrogen gases, both of which seem to have a much more beneficial action than carbonic acid gas.

VII.

VII.

*Medicinische und chirurgische Bemerkungen
ueber London, und die englische Heilkunde
ueberhaupt.*

*Medical and Surgical Observations upon Lon-
don, and the State of the Healing Art in Eng-
land in general. By Dr C. E. Fischer of
Brunswick. 8vo, Goettingen, 1796.*

MORALISTS have recommended to indi-
viduals the study of themselves as
the first step towards improvement. The
same advice may certainly be extended to
nations. We generally overlook those er-
rors which are always before our eyes, or
even deem them praise-worthy; a foreigner,
on the contrary, examining every thing by
the standard of his own opinions or pre-
judices, is apt at first to consider as wrong
whatever deviates from it. But every li-
beral criticism deserves serious consideration.
If we find it false, we may proceed more
boldly,

boldly, convinced that we are right; if just, it should teach us to avoid our errors. The opinion, therefore, of a learned traveller, concerning the state of medicine in this country, cannot be indifferent to any one who desires its improvement; and lest national prejudice should lead us to be partial in our account of this Work, we shall translate the analysis of it given by Hufeland, in his Practical Journal.

If it be certain, that we must be thoroughly acquainted with the climate, manner of life, and corporeal qualities of a nation, in order to judge rightly of the predominant character of its diseases, and methods of cure, it is particularly necessary with respect to England, because this nation has really so many peculiarities in its way of life, and because it has acquired almost the same authority in medicine that France once had in fashions; so much so, that it is enough for many physicians to know, that a remedy is used in England, to prescribe it to their German brethren, without farther consideration. This book will serve to inspire caution in transplanting English customs

stoms into Germany, and to diminish that high idea which many yet entertain of the present state of medicine in England. The days of Sydenham, Huxham, Pringle, and Monro, are past.

From infancy the English are brought up in bodily activity, cleanliness, and the enjoyment of fresh air. Their nourishment is strong, consisting more of solid roast beef with spices, strong beer and wine, than of soups, vegetables, and weak liquors, as in Germany. Even their methods of cure are more vigorous, though not always more proper; and the use of neutral salts and purgatives, so common in Germany, is much less there. Hence there is greater energy in the phenomena of the powers of life; hence fewer gastric complaints; hence the English support much stronger doses of stimulant, hot, and active medicines, than we dare ever think of in Germany. The rheumatic constitution is almost endemic; but we must not forget, that the English understand by this term every kind of pain in the limbs, even obviously gastric affections. The author saw, in a case of pain
in

in the præcordia and shoulder, evidently from a gastric affection, a blister applied to the nape of the neck. The rubbing in of a scruple or half a drachm of emetic tartar, dissolved in wine, is sometimes of service, but only, like every other slightly stimulating, topical remedy, by producing redness, and a small pustular eruption, on the part. Next to rheumatic complaints, consumption and dropsy are most frequent; but their treatment is quite empirical with *specifica et heroica*, without a plan of cure or due indication. There are indeed exceptions; and amongst these is J. Sims, one of the most acute and rational physicians now in England. The hospital for inoculation goes on well. They remain quite by Dimisdale's method, but find the use of antimonials, before and during the disease, particularly serviceable, and inoculate by a puncture in the arm. The mortality among the inoculated never exceeds one in 400.

Mercurial ointment is universally rubbed in, in inflammations of the liver, and in rheumatic pains; and much reliance is put in strong doses, even though some salivation follow.

follow. Sims maintains, that small doses always do harm in hydrocephalus. He was treating it with the application of leeches to the temples, with calomel and digitalis purpurea internally; and the mercurial ointment externally: the patient got twelve grains of calomel daily. In lameness of the extremities, the rubbing in of mercurial ointment, even to salivation, was evidently useful.

Opium is notoriously a very common remedy in England; nay, we might almost call it a domestic remedy. It is not credible how it is lavished and misused. As in Germany it is customary to add to a mixture, already answering every indication, a little syrup or cinnamon water, in England laudanum is added. The author saw a tetanus from dislocation of a toe, cured by giving opium to the extent of a grain every hour, and afterwards conjoining it with bark. A very intelligent surgeon from Jamaica asserted, that there they used, with great success in that disease, the oleum ricini, a remedy which indeed answers most of the indications. It is asserted, that children are in those countries

countries preserved from trismus by rubbing their temples and under jaw with this oil.

The third great remedy of the English is the Peruvian bark. Its consumption is immense. From the year 1788 till 1793, there have been imported into Britain 634,783 pounds, without reckoning what may have been smuggled. Now, if we deduct 123,700 pounds, which have been exported, there remains still half a million of pounds used in the country itself. The causes of this extensive use of it are, besides the real excellence of the remedy, the natural tendency of the physicians and people to believe in specifics and miracles, the authority of former great practitioners, and the great rarity of gastric diseases, as well in reality as in the heads of the physicians. This indeed is the characteristic of our English brethren. Twenty years ago, gastric diseases were still the fashion in England, to which Grant contributed much. But now the use of neutral salts or resolvents, with a view to gastric affections, or to prepare for evacuants, is unknown. It is there the custom to give emetics and purgatives immediately, not to

remove hurtful matter out of the intestines, but to prepare for bark. Sal ammoniac is indeed sometimes employed, not as a resolvent, but because, according to the assertion of some great practitioner, it had been found of service in this or that disease. It is not to be denied, that the causes mentioned above make gastric diseases, upon the whole, more unfrequent in England than with us, even tea-drinking, which here, on account of its weakness, is a constant debilitant of the intestines, is to the English, who drink it strong, even to astringent bitterness, an actual tonic and diaphoretic; but gastric diseases are still more rarely met with in the heads of the English physicians, than in reality. The author saw patients, whose complaints were evidently gastric, sinking under a load of Peruvian bark, and in whom an emetic, when his advice was sometimes followed, immediately changed every thing for the better. He very often saw patients come to the hospital, complaining of want of appetite, bad taste in the mouth, oppression at the præcordia, weakness, &c. who were sent away by the physicians, with the advice,
that

that they should not give way to the weakness, but take a strong diet, porter, and a decoction of bark. The consequence in general was, the bark completely disagreed with them, and produced all the bad consequences it does with us in similar cases. But sometimes the author saw with astonishment the bark overcome the affection of the stomach. Such facts, although they do not do their authors much honour, are however always instructive, and may serve to limit the abuse of the gastric method of cure, which is pushed much too far with us, and to shew that fordes is often the mere consequence of weakness and spasmodic sensibility of the intestines, where Peruvian bark, like other astringents, will be the best antigastric. The use of bark in continued and inflammatory fevers, is quite peculiar to the English; and by it, in their own opinion, they raise themselves above the crowd of common practitioners. But on what is this opinion founded? First, upon the authority of Morton; who, upon speaking of the use of bark, accidentally calls the fever continued and inflammatory, and immediately afterwards, from

the relation of the symptoms of colliquative diarrhoea, great weakness, &c. shews, that he by no means meant a real inflammatory fever. We all know how indeterminate the nomination of fevers was by the old physicians. Upon a mere name, then, the English at present found their reasons for the use of bark, and even a Sims, who adduced this as a proof, that bark could be no tonic or astringent, answered the author who asked, "How does it act?" quite vaguely, that its operation must consist in something different from what is commonly believed; an instance of evident propensity to belief in specifics. Secondly, The modern English use the words *acute* and *inflammatory* quite indeterminately, and often merely to obtain notice, or to say something new. An example of this is the acute rheumatism, in which Dr Saunders lately recommended the bark. But let us hear how he explains himself: "The acute rheumatism soon takes
" on the state of a remitting fever, when we
" dare not pursue the antiphlogistic method
" long, but may order the bark, that is in
" cold infusion." Is this any thing new?

Is this still inflammatory rheumatism? And now a heap of letters upon the utility of this method crowds the public papers, in which there are often obvious contradictions. The author gave himself the trouble of inquiring after the frequency and success of this new method, but found the reverse the case. Even the apothecary of Dr Saunders told him he often let blood in this disease, and gave the bark afterwards. It is the same case with the new discovery of Fordyce, that bark given in powder, to the extent of a drachm every hour, is the best remedy against erysipelas; whereas it appears from an exact inquiry, and unfolding of the febrile mysteries, that in reality superficial inflammation of the skin, and ulcer, are meant, which become worse from evacuants, and therefore depend upon weakness and atony.

Lastly, How unreasonable their ideas of the continent are, will appear from the following remarkable anecdote. During a conversation about the angina pectoris, the author mentioned to one of the most celebrated physicians in London, the just idea of

our excellent Elsner, that it had often a gouty origin : Ah ! that is all nonsense, was the answer ; and now an empyrical method of cure was begun, which consisted in purging, and the prescription of bark immediately afterwards, and which, in the opinion of that gentleman, was the only canon of relief in the disease.

VIII.

VIII.

On the Use of the Lukewarm Bath in Fevers in general, and particularly in those called Low Nervous Fevers. By J. D. Brandis, Physician at Driburg.

See Journal der Erfindungen, Theorien und Widersprueche in der Natur-und Arzneiwissenschaft. Fünftes Stück. 8vo. Gotha, 1794.

DR BRANDIS, in his Treatise upon the Driburg Waters, had recommended, in a general way, the use of the warm-bath in nervous fevers. It did not occur to him, that he had said any thing new, or requiring more full elucidation, until he read that part of Dr Marcard's Work upon bathing, in which he doubts its propriety, and even condemns its use in such cases. This first excited our author to pay the subject more particular attention, and to expose more fully the grounds of his opinion.

In the winter of 1785, the flow nervous
fever

fever was frequent in Goettingen, often complicated with gastric, bilious, and pituitous symptoms. In general, however, there were no evident or certain remissions, and the sensorium was especially affected. An obtuse pain in the back of the head, peculiar weakness and dullness, or preternatural sensibility of the organs of sense, a small, irregular, often little accelerated pulse, dejection, crude, quite clear, or sometimes natural urine, watchfulness, or great inclination to sleep without refreshment, purging without relief, were, during the first ten or twelve days, in general the chief complaints of the patient, who could frequently remain still out of bed. The sensorium became gradually more affected; want of memory, apathy, and light delirium, succeeded; and the disease often terminated in the fifth or sixth week, commonly attended with convulsions. A young physician died thus in the sixth week; another, who in company with our author opened his body, was seized with similar symptoms. He had been already eight days ill when Dr Brandis first saw him: his situation was very critical; the
sensorium

sensorium was remarkably affected, extraordinary dejection alternated with slight delirium; the pulse was small, irregular, and very quick, no evident remission was to be observed, nor any marks of accessions. Blisters had been applied to his legs, and he used internally wine, camphor, and bark. These stimulating remedies seemed to affect the sensorium still more; the delirium increased, and all the other symptoms grew worse. The lukewarm-bath was now ordered, the other remedies were omitted, and *sp. mindereri* was prescribed, with weak warm wine and water, for his drink. The effect of the first bath was strikingly beneficial. After he had remained in it half an hour, the delirium and anxiety diminished, and he declared it did him good, and would certainly save him. The bath was continued eight or ten days. He recovered gradually, and was at last completely cured.

In Hildesheim, in the winter 1789, a similar disease was epidemic. Dr Brandis employed his remedy, wherever it could be used, and with constant success. He attended a shop-boy, who was seized with this
flow

flow nervous fever, accompanied by a succession of anomalous symptoms, all, however, referable to a peculiar affection of the sensorium. In the third week, universal apathy, stupor, and delirium, came on. During three weeks every remedy was tried; wine and ether were given in large doses, but in vain; the bath alone, on account of the local situation of the patient, could not be used, and he died in the middle of the eighth week. Immediately thereafter, a young woman in the same house was attacked. The symptoms were in the very beginning more violent. Insuperable melancholy and depression, with violent pain in the back of her head, slight remitting fever, &c. confined her to bed in eight or ten days, and dreadful apathy came on as early as the thirteenth day. In this case, Dr Brandis overcame all difficulties, and on the fifteenth or sixteenth day the patient was placed in the warm-bath. The expected success followed, the delirium diminished, the disease declined without any obvious crisis, and in four weeks was quite removed. The reconvalescence was, however,

ever, extremely slow, and the total loss of hair shewed how violent the disease had been.

In February 1798, Dr Brandis was consulted on account of a young merchant. He had been three weeks ill, and treated partly with slightly evacuating, partly with stimulating remedies. Family-distress prevented our author from visiting the patient, and he only recommended the use of the warm-bath in a general way. The attending physician had, however, no confidence in it, and did not use it. Fourteen days afterwards, Dr Brandis was again called in, and found the patient given over by the former physician. He lay quite insensible, passed his stools and urine involuntarily, he was slightly delirious, constantly muttering or making various gesticulations with his hands; his pulse was small and frequent, *subfultus tendinum* was almost constant, and his tongue was quite dry, of a bright red colour, without any incrustation. He frequently brought up, by coughing, thin frothy blood. The disease had now continued five weeks; evacuating and exciting remedies had been freely used,

used, and recourse had been long had to strong doses of wine and musk. Our author, even in this situation, did not hesitate to order the warm bath; he trusted in it as a powerful antispasmodic, and its use was now agreed to. The very first bath produced evident relief, which encouraged them to continue its use steadily. The patient no longer brought up blood by coughing, and his stools were less frequent, and not without his being sensible of them. In eight days he was evidently better, and in about three weeks perfectly recovered.

The principal effect of the warm bath in fevers is good in general, since it takes off the spasm of the skin, and those parts sympathizing with it increases the excretion by the skin, promotes the flow of blood through its vessels, and moderates the action of the nervous system, but without in any way diminishing the vital power or irritability. Such, says our author, is the opinion of Cullen, Selle, and of Marcard himself, where he proves, that the warm bath does not debilitate. According to our author, he seems to have been misled merely by the phenomenon which both of them, as well as Mar-

teau,

teau, have observed, that in the bath the pulse often falls sixteen or twenty beats in a minute. Dr Marcard ascribed this to a diminution of the vital principle; our author explains it otherwise. A freer circulation in the small vessels of the surface, must, says he, diminish the flow of blood to the heart; now the stimulus, which excites the heart to action, being less, its contractions become less frequent, though without the smallest diminution of the vital principle. Hence Dr Brandis thinks the warm bath not admissible in those fevers where the cause lies in the *primæ viæ*, until that be removed, and only in putrid fevers when the crisis takes place by the skin, nor in inflammatory fevers, when the vital principle must be diminished, which is contrary to the action of the warm bath; although he believes, with De la Verniere, that it may be useful as an assistant remedy, particularly in inflammation of the intestines, on account of the sympathy between these and the skin. An irritable melancholy man became obstinately constipated. His physician, thinking constipation

pation must be removed by purgatives, gave at first neutral salts freely, then jalap, and at last, one morning, half a scruple of calomel, with frequent clysters of vinegar and water, and next morning a whole drachm of diagrydium sulphuratum. Constant vomiting, a small hard pulse, and violent pain in the belly, now came on, and the physician had resolved to venture every thing, as he said, and to make the patient swallow half a pound of pure quicksilver, when Dr Brandis was called in. Lukewarm-bathing, bleeding, opiates, and the application of a blister to the belly, effected a cure. In those fevers in which the solids particularly suffer, our author thinks the warm-bath must be especially useful. For confirmation, he refers to Cullen, Richter, and Selle; and concludes with joining Marcard, in recommending it in malaria, arising, in warm countries, from marsh miasma; and in small-pox, where violent fever and spasm of the skin is present.

IX.

A Description of the Jail-Distemper, as it appeared among the Spanish Prisoners at Winchester in the year 1780; with an Account of the Means employed for curing that Fever, and for destroying the Contagion which gave rise to it. By James Carmichael Smyth, M.D. F.R.S. Fellow of the Royal College of Physicians, and Physician Extraordinary to his Majesty. 8vo. London, 1795.

IN a short preface to this important publication, the author gives an account of the circumstances which led to his being appointed to visit the Spanish prisoners confined at Winchester, when the jail-distemper prevailed among them with great fatality; and of the intencion which he formed, of giving some account of the disease which he had seen, and of the means that had been successfully employed, both in the treatment of the fever, and likewise in destroying the contagion. He mentions also,

the circumstances which led him to delay that publication at the time, as well as those which have induced him to publish it at the present period. He then introduces his subject by some general observations on the jail-distemper.

In every situation, he observes, where a number of people are crowded together, unless the strictest attention be paid to cleanliness, and to free ventilation, a fever, sooner or later, breaks out among them, of a very contagious nature, and attended with very fatal effects. This fever, known by the name of the Jail-distemper, has already been described by several physicians of eminence. But as it assumes, according to the violence of the contagion, or other circumstances not yet understood, a variety of appearances, its history, he remarks, must be considered as incomplete, until all these varieties are accurately pointed out, and the characteristic marks of the distemper distinguished from the accessory or accidental symptoms. With the view, therefore, of rendering more perfect the history of so important a disease, he gives a brief account of its appearance at

Winchester;

Winchester ; and this he was enabled to do, not only from what he saw, but from what he felt, having himself suffered two severe attacks of the fever.

This disease in general came on suddenly, and the stomach was always the part first affected. A disagreeable feeling at the præcordia, a degree of nausea and giddiness, were the first symptoms. These were soon followed by a pain immediately above the eyes, at the temples, or at the back part of the head. Chilliness, great weakness, and frequent sighing, likewise attended its commencement. The countenance was pale, and the eyes dull, though the tunica albuginea was of a clear white. Costiveness was general, with a tense and hard abdomen. The pulse was for the most part small and fluttering ; but in some instances it was little altered from the natural state. The patients were always drowsy, but when spoken to, awoke readily, and, when awake, gave distinct answers to any questions put to them. Few were permanently delirious, unless for a short time before death ; and many were sensible to the very last.

To the general description of the disease, Dr Smyth subjoins a particular account of his own case, in hopes that, describing what he himself felt, he might throw still greater light on the nature of this distemper. After long exposure to the contagion, although he had felt no inconvenience within the house, he found himself very giddy, with a considerable degree of nausea. These symptoms, however, soon went off; he ate his dinner as usual, and went to bed seemingly in perfect health. But, about the middle of the night, he awoke from sleep with symptoms of the most violent fever, the oppression at the præcordia exceeding all description, whilst the sensation of heat gave him the idea of liquid fire, spreading from his stomach across his breast, along the course of the pectoral muscle, and down the insides of his arms, to the extremities of his fingers. Notwithstanding these dreadful sensations, his pulse was regular, and the frequency of it by no means in proportion to the degree of heat. This, however, was not the case at later periods of the disease. For during a future exacerbation in the night, his pulse

was

was much quicker than he ever remembered to have felt that of any adult who was not in the agonies of death, the heart seeming rather to vibrate than to beat.

These are the most remarkable symptoms mentioned by Dr Smyth, as having occurred in this case; during the course of which, he employed chiefly antimonials and the Peruvian bark; and probably with good effects: for, notwithstanding the severity of his symptoms at particular times, yet he does not seem, for a single day, to have been confined to bed, or even to the house. He continued, however, for several months very weak and languid. Nor was the disagreeable feeling of his breast and arms removed till the winter following, when he applied a blister to the sternum, which occasioned an eruption of painful carbuncles all over his breast; and an eruption somewhat similar afterwards came out on the back-part of his head.

After a particular description of his own case, Dr Smyth next presents us with some observations on the most remarkable symptoms of the Winchester fever. Though

a disagreeable feeling at the pit of the stomach is a common symptom in all fevers, yet he never saw it so permanent, through the whole course of the disease, as in the present instance. The peculiar clearness of the tunica albuginea of the eyes, which occurred in this fever, he considers as a very uncommon appearance. He had before considered a turbid appearance, or redness of the tunica albuginea, as a constant and distinguishing symptom of every fever of the contagious kind. But before he had been long at Winchester, he was convinced of the danger of establishing general observations ; as in the greatest number of the sick, the eye had more of the pearly whiteness observable in consumptive persons, than of the redness usual in contagious fevers.

Dr Smyth next considers the causes which contributed to the mortality of the Spanish prisoners at Winchester. This mortality might seem extraordinary to any one acquainted with the healthy situation of Winchester, the largeness of the prison-wards, the convenience of the airing-ground, and, above all, the attention paid

to

to the treatment of prisoners of war in Britain. But Dr Smyth thinks the mortality was to be ascribed to the concurrence of different circumstances, particularly the long confinement of these seamen on board their own ships; their having brought with them all their clothes and bedding; their aversion to expose themselves to free air, from a dread of the cold and dampness of our climate; the despondency of mind of many of them who belonged to the Caracca Company, and had lost their fortunes as well as their liberty; a prejudice which, in consequence of a dispute with the surgeon, they entertained against him; and, lastly, the hospital being too much crowded, from the number of the sick increasing so rapidly and unexpectedly.

In treating of the nature of the contagion, Dr Smyth contends, that in the case of the jail-fever, it is in every instance the result of putrefaction, and particularly the putrefaction of the perspirable matter, when there is not a renewal of the application of air to carry it off. This, he thinks, admits of every species of evidence applicable to

a matter of fact and observation. With regard to the communication of this contagion, Dr Smyth thinks he may affirm, that it affects not only those immediately exposed to the originally contaminated atmosphere, but that it may also be communicated by the clothes of persons, who have, for any length of time, been confined in it, although the persons themselves have suffered no injury from these clothes, nor had any disease.

Dr Smyth is of opinion, that a very considerable variety of fevers, from the slightest vernal intermittent to the true plague, are only different shades and varieties of the same disease, and productions of one common cause, putrefaction; and he considers the contagion of the jail or hospital fever, as one of the most subtile and powerful vapours of the putrid kind. In ordinary cases of fever, the vital principle is only, he thinks, roused into action, and is commonly sufficient to remove the morbid cause; but here the contagion seems to act as a narcotic poison, suppressing in place of rousing the principle of life. Since, therefore,

therefore, nature can do so little, it is, he observes, of the utmost consequence to know whether the contagion may be prevented or destroyed.

This naturally leads Dr Smyth to consider the means of preventing or destroying the jail-contagion. In respect of specific contagions, he observes, that unless they be exposed to the open air, or to a stream of water, we know no means of destroying them, or even of blunting their activity. The case is not, in his opinion, the same with putrid contagions, which are often entirely destroyed by certain degrees of heat or cold; and nothing, he was induced to think, could so certainly or efficaciously destroy them, as the mineral acids in a state of vapour. The fumes of sulphur so successfully made use of to fumigate clothes or furniture, cannot be employed either in hospital or prison-wards, as they are found, even in a small quantity, to prove immediately destructive to animal life. But Dr Smyth had frequently remarked, that the fumes of the nitrous acid did not affect the breathing in the same manner; notwithstanding which, he conceived •

ceived that they might prove of equal efficacy in destroying or diminishing the virulence of contagion; and many trials which he has now had an opportunity of making, have convinced him, not only of the power of the nitrous acid, but also of the safety with which it may be used. Of this matter he refers a more full description to the Appendix to this Treatise, and he proceeds to give an account of the treatment of the prisoners, and of the means employed to purify the prison and hospital wards.

When Dr Smyth arrived at Winchester, he found the sick-list increasing so rapidly, that it was necessary to have immediate recourse to some means for destroying the contagion. With this view, he divided the whole prison-wards into four parts; and lodging the prisoners in three of these, he set aside the fourth for the purpose of purification, which was conducted in the following manner.

After removing all the hammocks, bedding, &c. from the wards, they were first thoroughly cleaned out. Then the hammock-posts were well washed with diluted
marine

marine acid. The wards, when dry, were closely shut up, and pots placed in them at different distances, containing from half a pound to a pound of nitre, which was de-flagrated by an iron heater put into each pot. The wards were then shut up for some hours, and when opened were exposed to a free ventilation. After this process had been once or twice repeated, the wards were again furnished with fresh hammocks and bedding, the old ones being entirely taken away.

Having thus prepared the wards, his next object was the preparation of the prisoners who were to be lodged in them. As many as could be lodged in the prepared wards were taken to the river in companies. They were stripped, washed, and new-clothed, all their old clothes being carefully removed. The good effects of this plan, as far as it could be carried into execution, were immediately felt: for none of the prisoners so managed were afterwards seized with the fever, though for want of a sufficient quantity of fresh clothes, it was necessary to restore to the owners what had
been

been taken from them, after purifying and fumigating them.

Dr Smyth next proceeds to treat of the cure of the jail-fever ; and he first speaks of the preventive treatment or cure of the disease in the first stage. He observes, that putrid contagions, contrary to what happens with those of the specific kind, after they have been admitted into the body, and even after they have excited various morbid symptoms, may again be expelled, either completely, or at least to such a degree as greatly lessen their violence. From the experience of some of the ablest physicians, we learn, that there are three ways of expelling contagion ; the first by an emetic, the second by sweating, and the third by blisters applied to different parts of the body. Of each of these he offers some observations. An emetic he represents as the chief means of expelling contagion, if employed immediately on the attack of the disease. But it must not be used without very great caution when the contagion has excited vomiting, or rendered the stomach very irritable. As an emetic is seldom
alone

alone sufficient, it is necessary, Dr Smyth observes, to have recourse to sweating to complete the cure of the first stage.

When sweating is employed, it should be kept up until the symptoms of fever be removed, or at least till a complete intermission be obtained. But we should never, Dr Smyth tells us, force sweating by any means by which the heat of the body or quickness of the pulse may be greatly increased; and we ought never to persevere in keeping up profuse sweating, if we find that it does not afford a sensible relief, or abatement of symptoms.

The third method of removing contagion, of which Dr Smyth speaks, is the application of blisters. Of this, however, he can say nothing from his own experience; and he mentions it only on the authority of Dr Lind. He thinks it not improbable, that in the beginning blisters may be used with advantage, and the discharge give an outlet to the poison. But, in whatever way their operation may be explained, he considers the authority of Dr Lind as warranting a trial.

Besides

Besides these three methods of expelling the poison, there are two other circumstances which he considers as useful, if not necessary parts of practice, in the first stage of this disease. The first is opening the body; for which purpose he recommends calomel as being most certainly efficacious, while there is very little risk of its doing too much. The second is bathing the feet and legs, or, what is preferable, the whole body, in warm water. This practice, Dr Smyth thinks, is particularly requisite for soldiers and sailors, as it washes away any remains of contagion adhering to the surface of the body, removes the coldness of the extremities, and, by relaxing the skin, renders it more transpirable.

If, from employing the whole or any part of this preventive method of cure, the symptoms be either entirely removed, or a complete intermission obtained, the return of the fever is to be prevented by the free use of the Peruvian bark; and the patient is to be restored by tonics, gentle exercise, and change of air. When the preventive method has proved ineffectual, the fever may

may be looked upon as formed, or advanced to the second stage; and recourse must then be had to other modes of treatment: These Dr Smyth next proceeds to consider.

After stating the sentiments of different authors respecting the cure of the jail and other contagious fevers, he delivers his own opinion of the treatment of the jail-fever, in the second stage, or when the disease is established. The great objects of the rational practitioner at this period of the disease, are, he tells us, to moderate the symptoms of fever, without diminishing the strength; and to support the strength, without increasing the heat of the body, or frequency of the pulse. For answering these complicated and seemingly opposite intentions, Dr Smyth tells us, he does not know any medicines so proper as some of the preparations of antimony and the spiritus ætheris vitriolici, or the vitriolic æther itself.

Without entering into the comparative merit of the various preparations of antimony, Dr Smyth gives the preference to tartar emetic and James's powder, or the pulvis

pulvis antimonialis of the London Pharmacopæia, which he considers as being the same with James's powder.

These antimonials Dr Smyth did not give at this period of the disease, with the intention of exciting vomiting, or even nausea. To determine their operation to the bowels in a moderate way, he generally added to the antimonial powder a few grains of rhubarb, or of calomel. The antimonial powder, thus managed, commonly, he tells us, keeps the body soluble, the skin moist, prevents the dryness of the mouth and fauces, and lessens the oppression, anxiety, and sense of heat at the præcordia. He dissuades, however, from the use of antimonials, when, from the extreme irritability of the stomach, they occasion sickness and vomiting, when there is a disposition to profuse sweating, or when they increase lowness and dejection. This, however, Dr Smyth tells us, may be much obviated by the other medicine, which, from long experience of its efficacy, he has ventured to recommend in the cure of contagious fevers.

This

This medicine, the spiritus ætheris vitriolici, has, he thinks, an advantage over most cordials, as it does not increase the heat of the body, or the quickness of the pulse; but, on the contrary, renders the action of the heart more regular and slow. It is also, he tells us, serviceable in promoting a diaphoresis, and in lessening the anxiety, tremors, &c. As to the modes of giving it, in cases of fever accompanied with petechiæ and vibices, and with a disposition to hæmorrhage, he commonly gives it in the infusum rosæ, two or three drachms to a pint. When there is great heat in the region of the stomach, he prefers giving it in a glass of Seltzer water. When the stomach is extremely irritable, he gives it in an infusion of mint, or in weak negus made with hock or Rhenish wine. Sometimes he gives it largely diluted as a beverage; at other times as a medicine, with a smaller proportion of water.

Although Dr Smyth has found the vitriolic æther and the compositions of it generally agreeable to the taste of the sick, yet he has now and then met with patients

who had a particular dislike to it, and would not take it in any form; in these cases he uses camphor in its stead. Dr Smyth has seldom been under the necessity of employing any other medicines in the second stage of this disease. And when the fever has been treated in this manner, the third stage, he tells us, has seldom occurred: but when it does occur, another treatment becomes necessary; and respecting this, Dr Smyth next makes some observations.

When the patient is affected with a permanent coma, an increased propensity to gangrene, and a resolved state of the blood, symptoms which he considers as characteristic of the last stage, recourse, he observes, is commonly had to the Peruvian bark, serpentaria, contrayerva, aromatics, volatile alkali, musk, mineral acids, and wine, with the application of blisters to the extremities. On each of these he offers some observations. The Peruvian bark he considers as the medicine promising the greatest advantage. But as it can seldom, in this state of fever, be taken into the stomach in sufficient quantity to be productive of much benefit, Dr Smyth
never

never trusts to the quantity taken by the mouth, but also orders it to be thrown up by glyster every twelve hours; and to support the strength, he commonly directs it to be boiled in mutton or chicken broth. Of this he directs half a pint, or twelve ounces, to be administered at a time; and he thinks it is in general adviseable to add twenty or thirty drops of the tinctura opii.

As for wine, unless when the sick themselves have a dislike to it, or when there is reason to apprehend a phrenetic delirium coming on, it may, he thinks, be safely allowed in every stage of the disease. The quality of the wine, and the quantity of the water, with which it is diluted, will depend upon the time and symptoms of the disease. In the last stage, when the patient is extremely weak, with a sunk pulse and cold sweats, the strongest wine is required, and the proper quantity can be determined only by the effect it produces. Dr Smyth tells us he has given with advantage two bottles of Madeira a-day, for several days together; and that he once gave two bottles

of Port wine in twelve hours to a patient who recovered.

Dr Smyth concludes his account of the treatment of this fever, when formed, with a few remarks on the regimen and management of the sick. They should, he observes, be kept in bed, and in a horizontal posture. No curtains should be drawn around the bed, so as to prevent the free circulation of air: The heat of the room should be temperate, rather cold than hot: The windows, unless in very severe weather, should be kept open during the day: The quantity of bed-clothes should be regulated by the patient's habits of life; in general the sick should be lightly covered. Liquid nourishment is the only food they require; and they should be confined to the use of gruels, panadas, and vegetable jellies; to which wine may be occasionally added: Whatever they take should be given in small quantities, and often. Their drink should never be more than tepid; and, when there is no symptom of visceral inflammation, it should be quite cold. In many cases, Dr Smyth has no objections to ice, or to drink cooled in ice. Patients, however,

however, should never drink much at a time; and as they have seldom great thirst, they do not require it: fruit, he adds, is commonly agreeable and useful to them.

Dr Smyth next proceeds to make some observations on certain symptoms occurring in the course of this fever, which greatly increase the sufferings and danger of the patient, and which demand particular attention on the part of the physician. The stomach is often so extremely irritable, as to reject every thing. In this case, Dr Smyth has known some relief afforded by fomentations, or by a plaster of theriaca, or of opium and camphor, applied to the præcordia. Internally, absorbents, mucilages, and opium, are the chief remedies. But the medicine which he has found most useful is calomel given in pills, to the quantity of one, two, or three grains, with opium, and repeated at intervals till it procure some evacuation by stool.

For allaying burning heat and oppression at the præcordia, Dr Smyth tells us, he knows nothing so serviceable as twenty or thirty drops of vitriolic æther, in a glass of

Seltzer water, neutralised with a tea-spoonful of lemon-juice, and taken in the state of effervescence. The vitriolic æther, or the spiritus ætheris vitriolici, are also, he thinks, the best cordials, and most effectual remedies, for the lowness, anxiety, tremors, and catchings, which so frequently occur.

What he considers as the most effectual means of obviating the phrenetic delirium, are, to keep the body open, the air of the room cool, the patient lightly covered, and to avoid the Peruvian bark, and all heating cordials. After the delirium had come on, he never observed any sensible relief from the application of leeches or of blisters; but he has repeatedly seen patients greatly composed by cold embrocations constantly applied to the forehead, or to the head shaved. The embrocation which he has commonly used is formed of rose-water, with a small proportion of vinegar and of camphorated spirit of wine.

When there is a tendency to profuse sweating, the patient should sleep on a mattress, be kept very cool, and take frequently a cup of the infusum rosæ. The drink should

should be red wine and water, taken cold, with a few drops of the elixir of vitriol. Where there is too great tendency to purging, absorbents, mucilages, and opiates, with ipecacuana or rhubarb, in small doses, are, he tells us, the proper remedies. In these cases, antimonials and acids, whether vegetable or mineral, must be avoided.

This treatise is concluded with a few remarks on the convalescent state, and on the general effects of contagious fevers on the constitution. Contagious fevers in general, but especially those which arise from a jail-contagion, seldom terminate in complete recovery. As the head is more particularly affected in these fevers, it is sometimes very long before the patient be perfectly free from giddiness, and partial defect of sight. Dr Smyth has sometimes seen the pupils of the eyes remain for several weeks so considerably dilated, with a pulse from an hundred to an hundred and twenty, as to give just ground to suspect that the brain was materially injured; and yet these symptoms at last have gradually disappeared; and the complete recovery of the patient has proved,

that they were only the effect of temporary weakness and irritability. When convalescents become suddenly anasarcaous, they commonly, Dr Smyth tells us, receive immediate relief from a brisk purge, combined with squills, or some other diuretic medicine.

To this Treatise, by way of Appendix, are annexed several papers connected with the subject, and which particularly tend to confirm the two most important points on which he has insisted, on the efficacy of the spiritus vitrioli dulcis in the cure of fevers, and the superior advantages of the nitrous acid for destroying the jail contagion. But this important discovery will be found more fully demonstrated in the next article.

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An Account of the Experiment made at the desire of the Lords Commissioners of the Admiralty, on Board the Union Hospital Ship, to determine the effect of the Nitrous Acid in destroying Contagion, and the Safety with which it may be employed. In a Letter addressed to the Right Honourable Earl Spencer, &c. &c. By James Carmichael Smyth, M. D. F. R. S. Fellow of the Royal College of Physicians, and Physician Extraordinary to his Majesty. 8vo. London, 1796.

THE subject of this short Treatise is intimately connected with the work of Dr Smyth on the fever at Winchester, of which an analysis has been given in the preceding article. And if future experience shall confirm what may with a high degree of probability be inferred from the experiment here related, Dr Smyth's discovery respecting the influence of the nitrous acid

acid in destroying contagion, will prove of the most essential benefit to mankind.

After a few introductory sentences addressed to Earl Spencer, respecting the importance of the subject, Dr Smyth immediately presents his readers with a report of an experiment for stopping the progress of contagion, executed at his desire on board the Union Hospital-ship, at Sheerness, by Mr Archibald Menzies, late surgeon to his Majesty's ship the Discovery; a gentleman, who, as Dr Smyth justly observes, seems to have been in every respect well qualified for executing so important a trust. The report is here given in the words of Mr Menzies himself.

After having obtained every necessary information on the intended manner of conducting the fumigation, Mr Menzies tells us, that he arrived at Sheerness on the 24th of November 1795, and went on board the Union Hospital-ship, in which, according to orders from the Admiralty, the experiment was to be tried. In this ship, the lower and middle gun-decks were divided into large apartments or wards, which were very much crowded

crowded with sick. They lay in cradles to the number of nearly two hundred, of which about one hundred and fifty were in different stages of malignant fever, extremely contagious, as was evident from its rapid progress, and fatal effects among the attendants on the sick, and the ship's company. The mortality, indeed, had not been so great as from the virulence and malignity of the disease there was reason to dread, which, Mr Menzies thinks, was to be ascribed only to the great care and attention of Mr Baffan, surgeon to the hospital.

On the forenoon of the 26th of November, Mr Menzies began the experiment. He first ordered all the ports and skuttles to be closely shut up. Sand, which had been previously heated in iron-pots, was then scooped into earthen pipkins by means of an iron-ladle. In each pipkin a small tea-cup was immersed, containing about half an ounce of concentrated vitriolic acid; to which, after it had acquired a proper degree of heat, an equal quantity of nitre in powder was gradually added, and the mixture stirred with a glass spatula, until vapour
arose

arose from it in considerable quantity. The pipkins were then carried through the wards by the nurses and convalescents, who kept walking about with them in their hands, occasionally putting them under the cradles of the sick, and in every corner where any foul air was suspected to lodge. In this manner the fumigation was continued, until the whole space between decks was fore and aft filled with the vapour, which appeared like a thick haze.

In this first trial Mr Menzies proceeded slowly and cautiously, following with his eye the pipkins in every direction, to watch the effect of the vapour upon the sick. He observed, that at first it excited a good deal of coughing : But this gradually ceased, in proportion as it became more generally diffused through the wards. This appeared to Mr Menzies to be chiefly occasioned by the ignorance and inattention of those who carried the pipkins, in putting them sometimes too near the faces of the sick, by which means they suddenly inhaled the strong vapour, as it immediately issued from the cups.

In

In compliance with Dr Smyth's directions, the body-clothes and bed-clothes of the sick were as much as possible exposed to the nitrous vapour during the fumigation; and all the dirty linen removed from them was immediately immersed in a tub of cold water, afterwards carried on deck, rinsed out, and hung up till nearly dry, and then fumigated before it was taken to the wash-house; a process which Mr Menzies thinks extremely necessary in every infectious disease.

As the people were at first awkward and slow, it took about three hours to fumigate the ship. In about an hour after, the vapour having entirely subsided, the ports and skuttles were thrown open for the admission of fresh air. Mr Menzies then walked through the wards, and plainly perceived that the air of the hospital was greatly sweetened even by this first fumigation. Next morning the ship was again fumigated, beginning with the lower deck; and the people employed being now better acquainted with the operation, were more expert, and finished the whole in about an hour. In another hour, the vapour having entirely subsided,

subsided, fresh air was freely admitted into the hospital. The sand was now made hotter, and the fumigation was of course much stronger. Yet the patients suffered no other inconvenience from it than a little coughing; and even that was not near so general as the day before. Twenty-seven pipkins were employed in the fumigation. About fourteen ounces of vitriolic acid, and as much nitre, were expended in the forenoon; but in the evening, as every place was close, and fresh air could not afterwards be so freely admitted, it was not thought proper to employ so many pipkins; so that little more than half the above quantity of fumigating materials was used in the evening.

The pleasing and immediate effect of the fumigation, in destroying the offensive and disagreeable smell arising from so many sick crowded together, was soon, Mr Menzies tells us, very perceptible, even to the nurses and attendants. They began to place confidence in its efficacy, and approached the cradles of the sick with less dread of being infected. The sick, therefore, were better attended;

attended, and the duty of the hospital more regularly performed.

On the 28th, the fumigation was repeated, morning and evening, in the same manner as on the preceding day, and with the same pleasing effect of destroying the offensive smell, and purifying the general air of the hospital. There was, however, in particular places, a constant source of bad smell, which was not so easily overcome, and which was occasioned by the necessaries. But this was remedied by an alteration in the construction of them. And Mr Menzies continued the fumigation on board the Union regularly every morning and evening, being, during that time, convinced that it not only lessened the danger of the infection, but also the malignity of the disease. He therefore concludes his report with observing, that the process of fumigating with the nitrous acid is simple and easy; and, although the vapour be extremely powerful and penetrating, the sick of every description were observed to bear it with little or no apparent inconvenience, and to a much greater degree than could have been expected.

expected. As it has been found to purify the air from disagreeable effluvia, produced from people being crowded together in a confined situation, it will, Mr Menzies thinks, be peculiarly advantageous on board of sickly ships, where the crew, their clothes, and the ship, may be fumigated at the same time, without risk from fire.

On the 7th of December, Mr Menzies resigned to Mr Baffan the farther prosecution of the experiment on board the Union hospital-ship; and by different letters from him, both to Dr Smyth and Mr Menzies, it appears, that by the continued use of the fumigation, the influence of the contagion was effectually counteracted, though numbers of patients, labouring under fevers of the most malignant nature, were received from the Russian ships of war.

After the account of the experiment on board the Union, Dr Smyth next subjoins a report from Mr Menzies, of a similar experiment which he made on board some of the Russian men of war, in which a very fatal contagious fever had prevailed. And there also, as appears both from the report of

Mr

Mr Menzies, and from a certificate granted by Captain Chechagoff senior, officer of the Russian fleet, the fumigation with the nitrous acid was found to have the best effects in stopping the progress of a contagious fever.

To these accounts of the experiments, Dr Smyth subjoins a few observations, pointing out the conclusions which they afford. He remarks, in the first place, that the experiments clearly demonstrate the safety with which the nitrous vapour, procured in the manner described, may be employed as a fumigation. He next observes, that it had unquestionably the effect of rendering the atmospheric air purer, and consequently fitter for the purposes of animal life, while, at the same time, it completely destroyed the offensive smell resulting from animal effluvia, or putrid matter. And, lastly, he endeavours to shew, that they afford complete and direct evidence of the power of the nitrous acid to destroy contagion.

In an Appendix to this Treatise, Dr Smyth presents us with extracts from two letters, written by that very ingenious Chemist Mr

Keir of Birmingham, to a friend of his in London, which may be considered also as strong testimonies in support of the power of the nitrous acid vapour, when obtained in the manner above directed. Mr Keir considers Dr Smyth's discovery to be very valuable. The fumes, he observes in his process, are quite different from the ordinary nitrous vapour in the distillation of aquafortis, or from that which exhales in the solution of metals by nitrous acid. The latter is what has been called phlogisticated nitrous acid vapour, and is highly suffocating and noxious. The fumes made in Dr Smyth's manner, if there be no metal employed in the vessel, is highly dephlogisticated or oxygenated nitrous vapour, and is also mixed with a large quantity of pure dephlogisticated air, which is extricated from the materials. These fumes, he observes, are not only not suffocating, but have a very pleasant smell. Mr Keir thinks, that if the distinction be not made between these two kinds of vapour, it is to be feared, that some person by accident, or in expectation of getting the nitrous vapour more expeditiously,

ly, may use metallic vessels, or dissolve metals in nitrous acid. For when this is the case, red vapours, which are unquestionably noxious, will be produced.

Mr Keir concludes with observing, that although a good deal of vital air be extricated from the mixture which Dr Smyth has employed, yet he cannot agree with those who attribute the medicinal effect to it. The analogy of the destruction of all animal and vegetable fermentation by mineral acids, which is well ascertained, inclines him to believe the agency of the acid in the destruction of contagion, the matter of which is, he presumes, animal in some vicious kind of fermentation.

Upon the whole, if it shall be found by future and more extensive trials, that the nitrous acid in this state of vapour does destroy contagion, we need not add, that the discovery will be of the highest utility to mankind.

XI.

An Account of the Yellow Fever ; with a successful Method of Cure. By James Bryce Surgeon, late of the Buxbridge East India-men. 8vo. Edinburgh, 1796.

THE deplorable mortality, which of late years has been produced in different places, by diseases denominated Yellow Fever, has naturally directed the attention of practitioners to that subject; and several of the most attentive of these practitioners, whose lot it has been to practise where it prevailed, have already submitted to the public their observations respecting the disease, and their opinions respecting the most successful mode of treatment. It is, however, much to be regretted, that, while they have held different sentiments respecting the cause of the disease, no plan of cure has yet been discovered, by which the ravages of this dreadful calamity can be effectually checked. Every farther effort,

fort, therefore, to communicate to the public a more effectual mode of combating this affection, may justly be considered as having an unquestionable claim to the best thanks of mankind. And the ingenious author of the Work now before us, has presented to his readers, with equal judgement and candour, the result of extensive practice in this disease.

The fever which he here describes prevailed on board the *Busbridge* East India-man, while he was surgeon to that ship; and different particulars respecting it were no less interesting than singular. The *Busbridge*, having on board 109 men belonging to the ship's company, 130 recruits belonging to the East-India Company, and 25 passengers, in all 264, sailed from the Downs for Madras and Bengal on the 15th of April 1792. It is very remarkable, that nearly about the same time the ship *Hankey* sailed also from England; by which unfortunate ship, according to Dr Chisholm, the epidemic was first introduced into the West-India settlements, which afterwards proved so fatal to them.

After experiencing very boisterous weather in the Channel, the Busbridge got clear out from the land about the beginning of May; and, on the 26th of that month, crossed the equator, in 27 degrees of west longitude. The weather for some days had been very sultry, the mercury having stood from 80 to 86 degrees of Fahrenheit's thermometer; and, as is common in these latitudes, there were frequent heavy showers of rain. About this time, the disease made its appearance, first among the recruits, and, in a fortnight afterwards, it spread among the ship's company. From the time the disease first appeared, it was common for six or seven to be attacked by it daily; and, in the space of twelve weeks, almost every person in the ship, not only had laboured under it, but many had suffered repeated relapses; and during that time, there were generally from thirty to forty sick on the list.

For some weeks after the commencement of this fever, the weather was uncommonly sultry, with very little wind, which occasioned a tedious passage. But after they
came

came within sight of the Cape of Good Hope, a violent gale blowing directly from the shore, not only prevented them from landing, but obliged them to deviate several degrees to the southward of the usual tract. While carried in this manner into the 42d degree of south latitude, they experienced a great change of temperature, the mercury in the thermometer falling to the 45th degree. When the gale abated, it was succeeded by thick and hazy weather; and, what was extremely remarkable, neither the northern gale, which lasted about ten days, nor the moist and hazy weather which followed, and continued for four or five days, appeared to lessen or augment in any degree the violence of the disease.

After they were enabled to bear away to the northward, till they arrived at Ceylon, they enjoyed fresh gales, with a moderate temperature. But there again a calm under the land immersed them in the same sultry heats they had experienced in the Atlantic. Still, however, no striking alteration appeared in the state of the sick, the number for nearly three months continuing

much the same. The symptoms of the disease indeed became milder, while they enjoyed favourable gales in their course northward. But as its violence did not return with the calm and sultry weather which followed, Mr Bryce is inclined to attribute its milder aspect to the improvements in the method of cure, which had by that time been learned from experience and observation.

How this disease originated, Mr Bryce does not pretend to determine. Its general prevalence seems, he allows, to suggest contagion as the cause. But the length of time after the departure of the *Busbridge* from England before the disease appeared, renders it improbable that the contagion was brought from thence, and they had been without communication with any port or vessel from the time of leaving the Downs till the disease made its appearance. While the disease raged on board the *Busbridge*, they had frequent communication with the *Rose Indiamen*, to which the infection was never carried: and, although many convalescents were sent ashore at Madras, the
disease

disease was not communicated to the inhabitants ; nor were several new passengers, who went with the *Busbridge* from Madras to Bengal, affected with it. These arguments, however, by no means disprove its being propagated by contagion, whatever its origin might be. They serve, indeed, to shew, that the contagion acted only under certain circumstances ; and perhaps to render it probable, that the propagation of diseases by contagion may be more easily prevented than some are disposed to imagine.

This disease on board the *Busbridge* could not be ascribed to want of air or cleanliness, as every possible attention had been used to preserve these ; the different apartments were thoroughly cleaned and fumigated with wetted gun-powder ; the decks were sprinkled with boiling vinegar ; and the wind-fails were attentively kept in order at each hatch-way. Mr Bryce is inclined to conjecture, that a peculiar combination in the circumstances of diet, situation, and state of atmosphere, may have given rise to this calamity. But the same combination of
circumstances

circumstances so frequently takes place without producing any fever, that it appears much more probable the disease had its origin either from an imported fomes, or from a fomes generated in some individual in the ship, from whence it was afterwards propagated to others by contagion.

After this account of the origin of this fever, Mr Bryce next presents his readers with a very distinct and accurate history of the symptoms. These were very nearly the same as have often been described by other writers. He observes, that in the severe cases, headach, giddiness, pain in the eye-balls, across the forehead, and in the calves of the legs, became almost insupportable; the pulse was exceedingly frequent, small, tremulous, and sometimes intermitting and irregular; and delirium, subsultus tendinum, with hiccough, and frequent nervous or convulsive paroxysms, seemed to threaten the immediate dissolution of the patient. The eyes and whole skin were remarkably yellow, and violent straining to vomit was a most distressing symptom. The matter thrown up in these cases, either resembled

sembled the grounds of coffee, or consisted of a watery fluid, with many small dark-coloured membranous-looking substances floating in it. The stools, which were procured only by medicine, were dark-coloured, often quite black, of a shining appearance, very viscid, and emitted an excessively putrid fœtor. They occasioned much scalding pain in passing, and often excoriated the extremity of the rectum, and all around it, to such a degree, that unctuous applications became absolutely necessary. To these evacuations by stool only, did the threatening symptoms yield; and it was observable, that the more dark-coloured and fetid such discharges were, the more early and certainly did the symptoms disappear. Their good effects, he tells us, were so instantaneous, that he has often seen a man carried upon deck perfectly delirious, with subsultus tendinum, and in a state of the greatest apparent debility, who, after one or two copious evacuations of this kind, has returned of himself, composed, and astonished at his regained strength. These symptoms were sufficient to demonstrate the real nature and disposition

disposition of this fever, which might with great propriety be termed the Yellow Fever. Indeed, according to Mr Bryce, in every case the colour of the skin was from a dirty fallow to a deep yellow.

After giving a history of the disease, Mr Bryce next proceeds to point out the method of cure which he employed. And here the success which attended his practice was truly remarkable. For though upwards of 250 patients were attacked with the disease, yet it proved fatal to three only. How far on board the *Bulbridge* this disease had the same degree of malignity, as at Grenada, Philadelphia, and some other places, we will not pretend to say; but from the accurate account which he gives of the history of this affection, there can be no doubt that many of the cases were truly alarming. The method of treatment, therefore, which he employed, may justly be considered as claiming particular attention.

For some time after the appearance of this disease, the cure was attempted by first clearing the *primæ viæ*, and, on the appearance of a remission or complete intermission,

mission, by giving the Peruvian bark freely. Mr Bryce, however, was much disappointed, when, after congratulating the patient in a state of apyrexia, on the prospect of a speedy recovery, he had the mortification of seeing all the symptoms of continued fever soon after renewed with redoubled violence. The milder purgatives now produced little or no effect upon the bowels; and the perseverance in the use of the Peruvian bark evidently appeared to be ineffectual and improper.

The increase of the bad symptoms, and the failure of the milder purgatives, led him to suspect, that a great quantity of putrid or poisonous matter was accumulated in the bowels, for the evacuation of which the most active remedies would be required. The event justified this opinion; and he had soon the satisfaction to find, that by means of the most drastic purgatives, provided early recourse was had to them, he had acquired a complete controul over this cruel distemper, even in its most formidable attacks. He then formed a plan for the regulation of future practice on three general indications.

indications. 1. To evacuate all putrid offending matters; 2. To prevent the re-accumulation of these; and, 3. To relieve urgent symptoms.

As evacuants of the putrid offending matter, he employed cathartics, emetics, and sudorifics. The purgative, which appeared by far the most effectual, was calomel, either given by itself, or joined with other powerful cathartics. On the first attack of the disease, he generally gave eight or ten grains of calomel, made into a pill of as small a bulk as possible; and, in three hours afterwards, a solution of purging salts, with emetic tartar. These never failed to operate both upwards and downwards, and commonly produced an alleviation of all the symptoms. They were sometimes sufficient to carry off the disease entirely. In by far the greatest number, however, the disease was more obstinate; and, although relief was at first generally obtained from evacuation of the bowels, yet it was soon observed, that a repetition of the saline purges, by procuring merely watery stools, exhausted the patient's strength, more than the
good

good effects from them compensated. But when recourse was had to calomel, either by itself or joined with powder of jallap, it never failed to carry off great quantities of very fetid, putrid, and black scalding matter, to the great relief of the patient. A full dose of calomel, therefore, consisting of ten or fifteen grains, was always given at night, and repeated in the morning, with some powder of jallap, or cathartic extract, if necessary.

There were no medicines, Mr Bryce tells us, however fully they might appear to evacuate the alimentary canal, from which much relief was procured, except calomel. This led him to suspect, that the seat of the disease was not confined entirely to the primæ viæ; but that it might proceed from a vitiated secretion, and infection of the liver or pancreas, or perhaps of the spleen; and that it was necessary to excite the action of the containing vessels, to enable them to throw off the offending matter: and from the action of calomel on the salivary glands, he presumes that it will be well adapted for this purpose. But whether there

there be any truth in this conjecture or not, he affirms with confidence, that although clysters and saline purgatives, by procuring merely watery evacuations, without removing the poison, exhaust the patient's strength exceedingly, and are therefore improper in the advanced stages of this disease; yet that at these times a full dose of calomel, either by itself or joined with some other powerful cathartic, may be given with the greatest advantage. He has, he tells us, often given a brisk cathartic of this kind, when the pulse was so feeble as scarcely to be felt, when hemorrhages, low delirium, nervous tremors and faintings, seemed to indicate the greatest debility. And after several copious, viscid, and excessively putrid evacuations, procured in this manner, he has had the satisfaction to find, that the patient very soon acquired a great increase of strength; that these threatening symptoms went entirely off; and that, by continuing the evacuations according to circumstances, the disease was soon brought to a happy termination.

At first, when the oppression and fulness
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of the epigastrium, or in the hypochondriac regions, were evident. Mr Bryce ordered friction, with mercurial ointment, on those parts, suspecting some visceral inflammation ; and this was attended with such manifest good effects, that he never afterwards omitted it, even although the patients did not make the complaints that in other cases had suggested the application. For he found, that soon after using the friction on the region of the liver or spleen, the patients seldom failed to have one or more evacuations, which were always of that very dark colour and offensive nature so necessary for the alleviation of all the symptoms. Upon the whole, Mr Bryce seems justly to have placed the greatest confidence in the cure of this disease on mercury. In what manner it operated, in combating the affection, may perhaps be a matter of doubt ; but the benefit derived from it seemed at least to be evidently the greatest, when it produced copious evacuations by stool.

After these observations on the benefit derived from mercury, Mr Bryce next makes a few remarks on some other remedies, par-

ticularly emetics, sudorifics, and the Peruvian bark, which he seldom found productive of any advantage; insomuch indeed, that he was soon induced to give up the Peruvian bark entirely.

The second indication, the prevention of the re-accumulation of offending matters, was chiefly obtained by a proper use of laxatives, and the regulation of diet. For this purpose also, mercurial laxatives were principally employed; and the diet of the patients consisted chiefly of flummery, sago or rice, while their drink was rice-water, or water-gruel.

Among the urgent symptoms, Mr Bryce often found vomiting the most troublesome attendant of the disease. In counteracting this symptom, draughts containing ether were sometimes of advantage: but what he found most efficacious, was calomel given in large doses during the intervals of vomiting, to which he sometimes, though rarely, joined an opiate.

Hiccough, nervous tremors, and faintings, were relieved by antispasmodics and cordials. For this purpose he chiefly employed

ployed the volatile fetid spirit and ether. Camphor also was frequently administered with the evening-dose of calomel, with a view to procure sleep, and often seemingly with success. In cases of great apparent debility, when nervous fits and faintings were frequent, it was, Mr Bryce tells us, necessary to allow the patient wine freely, till the operation of the calomel took place. But after this, it seemed to him to be not only totally unnecessary, but even improper, from its heating quality increasing the restlessness of the patient. Opium, as impeding the intestinal evacuations, was at last never used.

After his observations on the method of cure, Mr Bryce subjoins a few remarks on the prophylaxis. And here every attention which the circumstances of the case could possibly admit, seems to have been paid to obtain cleanliness and free air. The sick were as far as possible kept by themselves; they were daily removed from their births for some hours; and these, together with the whole decks, were cleaned and fumigated,

gated, while all excrementitious matters were instantly removed. It was not, however, till after enjoying a plentiful supply of fruits and fresh vegetables at Madras, that the disease entirely disappeared.

XII.

XII.

A Treatise on the Scurvy ; containing a New, an Easy, and Effectual Method of curing that Disease ; the Cause and Indications of Cure deduced from Practice; and Observations connected with the Subject : With an Appendix, consisting of Five Letters respecting the Success of a New Scorbutic Medicine. By D. Paterfon, Surgeon in the Royal Navy. 8vo. Edinburgh, 1795.

TO a great trading nation, and particularly to a nation whose existence almost entirely depends upon their navy, every discovery respecting the prevention or cure of sea-scurvy, must justly be considered as of the highest importance. If, therefore, future and more extensive experience shall confirm the success of that practice which Mr Paterfon has in this Treatise recommended, he is deservedly entitled to the best thanks of every Briton.

Mr Paterfon, while a surgeon in the royal
 I 3 navy

navy of Great Britain, had frequent opportunities, in various stations, and in opposite climates, of observing scurvy in all its varieties; and he was, he tells us, often obliged to witness it, in its most hideous shapes, without having it in his power to put a stop to its destructive career.

Although the authors who have written on this subject, differ much in their opinions respecting the proximate cause of this disease, some viewing it as an affection of the solids, others of the fluids, yet, both in the prevention and cure, they tend much to the same point. Vegetables have justly been considered as the principal remedies; and the acescent fruits, such as lemons, limes, and oranges, have been viewed as the most powerful antiscorbutics. These fruits, however, are not at all times to be obtained, and when obtained, they very soon decay; and the juice of any of them, whether in bottles or in casks, soon loses a great part of its original qualities. Hence experience has abundantly demonstrated, that they cannot be depended upon in long voyages. The same observation applies with equal, if not greater,

greater, strength to all kinds of vegetables that have been proposed as antiscorbutics. Hence Mr Paterfon justly confidered as a desideratum, the discovery of a remedy, which might at all times, and in every situation, be obtained and preserved without difficulty.

So far back as the year 1784, in a voyage from the East Indies to England, he was led, from different confiderations, to view the scurvy as being the produce of contaminated, poisonous, or foul air. In that voyage, among other remedies, he pushed the use of nitre in this disease to a considerable extent, and, he thought, with advantage. When afterwards reflecting upon this fact, he was led to conjecture, that the influence of nitre in mitigating or removing the scurvy, was to be accounted for solely, from the dephlogisticated or vital air which it contained, and that it might be rendered more active by being combined with an acid.

From the trials of different remedies which Mr Paterfon made, it appeared to him, that the acids differed very much in their effects.

The vitriolic acid seemed to answer no good

purpose; and some of the vegetable acids were more powerful than others. He observed, that scorbutic patients had a great desire for acids, and that they often employed them in very great quantities, without any bad effect; insomuch that he has known scorbutic patients, who drank in one night a quart-bottleful of good common vinegar, without any painful or disagreeable symptoms being produced. He was led therefore to infer, that instinct pointed out these acids as remedies; and he supposed, that if common vinegar were charged with oxygen or vital air, it might prove highly beneficial in preventing or removing scurvy.

Having seen good effects from nitre in cases of scurvy, and knowing that it contained a very great quantity of vital air, he concluded, that a solution of it in vinegar might answer the end in view. Accordingly, he took the first favourable opportunity of subjecting this conjecture to the test of experiment. At first, he dissolved two ounces of nitre in one quart of ship's vinegar, and gave half an ounce of this solution, which
he

he named *Acetum Nitrosum*, to some patients twice, to others thrice, in the day; and he as frequently bathed their blotched and ulcerated limbs with a little of it. From the good effects which it had, and from its not producing the smallest degree of nausea, colick, or diarrhœa, he was soon induced to augment the dose to an ounce; and finding that this also was born without inconvenience, instead of two, he dissolved four ounces of nitre in a quart of vinegar; and he gave from half an ounce to two ounces of this strong solution, twice, thrice, or four times in the day, according to circumstances; and he also directed the legs to be bathed with it frequently in the course of the day, if they were either blotched, stiff, or ulcerated.

The discharge by stool, the absence or presence of gripes and nausea, guided Mr Paterfon with respect to increasing or diminishing the dose of the nitrous vinegar. He remarks, however, that it is not a slight degree either of nausea or diarrhœa, that renders an alteration in the quantity of the
medicine

medicine necessary. To every individual, of a number of scorbutic patients, eight ounces of this strong solution, containing an ounce of nitre, have been administered, in the course of a day, with the greatest success, as long as such a quantity was necessary. Large, and frequently repeated, doses of this medicine, have been exhibited in cases of dysenterea scorbutica, and have been found to remove it. Sometimes, notwithstanding the free use of the nitrous vinegar, Mr Paterfon has known constipation take place to a considerable degree; insomuch, that he has found intermediate doses of cream of tartar necessary, and highly advantageous. But in a few particular cases, in delicate habits, and where the disease was not far advanced, he has found even small doses of the nitrous vinegar disturb the stomach and intestines. In preventing or removing this inconvenience, two, three, or four grains of camphor, with each dose of the nitrous vinegar, were found to be very effectual.

In cases of scurvy, during a course of the nitrous vinegar, the progress to recovery, according to Mr Paterfon, is very remarkable.

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The belly, he tells us, is in general kept gently open: the discharge of urine is increased, and is changed from an alkaline to a healthy nature; the skin becomes open, and more agreeable to the touch; the chilliness is changed to a pleasing warmth; and the pulse acquires steadiness and strength. The sleep comes to be more and more natural; the fallow and gloomy countenance is gradually changed to a clear and chearful expression: By degrees the inflammation of the nose and mouth subsides; the gums heat and get firm. The lower extremities lose their livid hue faster than could have been supposed: they gradually become softer, less painful, and more flexible; and ulcers put on an healthy appearance, and skin over. The great oppression about the breast and stomach gives way; and the cough and breathing become less laborious: the appetite and sense of taste are restored; the depression of spirit and the lassitude are forgotten; the strength increases; and, at last, health is re-established.

While recourse was had, however, to the
nitrous

nitrous vinegar, other practices also were sometimes employed. Thus, when the mouth and nose became inflamed, and the gums soft, enlarged, ulcerated, and fetid, alum, either allowed to dissolve in the mouth, or previously dissolved in water, and used as a wash, was, after trying a variety of articles, found to be the best remedy. The restoration of the mouth and nose to a sound state, Mr Paterfon considers as of the greatest importance ; for as long as they remain spongy, ulcerated, and fetid, the air passing through them to the lungs, must, he presumes, be highly contaminated, and probably be productive of very bad consequences.

With the view of assisting the nitrous vinegar, Mr Paterfon in general kept his patients on a mild and nourishing diet with wine. But with some, in order to try the full force of the medicine, no alteration was made : and he has seen many scorbutics at sea restored by the use of nitrous vinegar, without any addition to the common allowance of ship's provisions. All his patients, however, labouring under scurvy, were kept as much as possible in good air, which he considers

considers as absolutely necessary. Barley, pease, or rice, with portable soup boiled with them in the way of broth ; sago, salep, barley, rice, water-gruel, with sugar or currants, seasoned with cinnamon or mace ; weak infusions of tea, sage, mint, saffrafras, &c. sweetened with sugar, plumb-pudding, and the like, were the articles commonly allowed to scorbutics, as well as to the sick in general : white or red wine, according to circumstances, were given when deemed necessary.

Mr Paterfon strongly recommends, that all scorbutics, though incapable of any duty, ought, in fine weather, to be kept, if practicable, on deck, in the open air, walking, sitting, or lying, in such postures as to allow the blood to circulate freely, and to prevent contraction of the lower extremities. He recommends that the clothing should be accommodated to the climate : he observes, however, that flannel next the skin, in all climates, might be the means of preventing much mischief, particularly to those exposed to hard duty, and to the vicissitudes and inclemencies

clemencies of the weather, as soldiers and sailors very often are.

The mode of practice which Mr Paterfon has here recommended, seems, under his direction, to have been attended with the greatest success: For he informs us, that from the time he joined his Majesty's ship the Resolution, in October 1793, to the middle of July 1795, when he left her, about one hundred and eighty scorbutics had come under his care; and although a great number of them were extremely bad cases, yet all of them, excepting one, a man of a weakly constitution, who died from the disease violently affecting his lungs, and three others who were sent to hospitals, one to Haflar and two to Halifax hospital, recovered on board, and chiefly at sea, under many disadvantages, without feeling any inconvenience from the want of lemons, limes, or any kind of recent vegetable matter.

In the month of July 1794, Mr Paterfon, while at sea, was furnished with a small quantity of limes for the use of the scorbutics at that time on board. This afforded him an opportunity of comparing their effect

fect with that of the nitrous vinegar, by putting a certain number of patients on each : and from what he saw of both, after having weighed all circumstances, he decided in favour of the nitrous vinegar.

When engaged in investigating the nature of the scurvy, Mr Paterfon was led to make some experiments on the blood and urine; with the result of which the reader is here presented. From a person labouring under scurvy three ounces of blood were taken. After cooling and coagulating, it was found to consist of two ounces of coagulum, and one ounce of serum. The top of the coagulum, for about a sixteenth of an inch in thickness, was of a florid red, and tough ; that in the bottom was of a deep red, approaching to black, and easily divided. On a portion of the dark-coloured coagulum, was poured a quantity of common vinegar ; the colour of the coagulum was not altered : Another portion, by the addition of lemon-juice, became somewhat lighter : A third, by a solution of nitre in vinegar, was immediately changed to a beautiful red, more florid than arterial blood : In a fourth portion,

tion, the same effect was produced by a solution of nitre in lemon-juice: By volatile alkali added to a fifth portion, a black colour was produced: And the same change took place in a sixth, from the addition of diluted vitriolic acid. Both these portions were again changed to a florid red, by the action of a solution of nitre in vinegar, and the same change was also produced by the action of a solution of nitre in lemon-juice. The same experiments, Mr Paterfon tells us, were frequently repeated on blood taken from different scorbutic patients, and with the same, or nearly the same, phenomena.

To a vegetable blue infusion was added the urine of a person labouring under scurvy, and the mixture became green; but when a similar addition was made to the urine of a person supposed to be healthy, the colour of the infusion was no farther altered than by being made lighter; and it was also found, that the urine of people recovering from scurvy lost the power of changing vegetable blue to green.

From these experiments, conjoined with
some

some other circumstances, Mr Paterfon deduces several conclusions respecting the nature of scurvy. As this disease appears in places abounding with azotic and hydrogene gasses; as these gasses have sedative powers, possess the property of changing blood from a florid to a dark colour, and are, when combined, of an alkaline nature; as sedative effects appear very soon in scurvy; as the blood is of a dark colour, and the urine of an alkaline nature; as the scurvy is mitigated or removed by pure atmospheric or oxygenated air, which is of a cordial renovating quality; as oxygene gas contains what is diametrically opposite to alkali, the acidifying principle, and has the property of changing blood from a dark to a florid colour; and, finally, as highly oxygenated vegetable acids are more powerful than any thing else, in mitigating or removing all the symptoms which constitute or attend this disease; Mr Paterfon was led to conclude, that the cause of scurvy is contaminated or poisonous air, most probably rendered so chiefly by azotic and hydrogene gasses of a sedative, contaminating nature, acting more

readily in proportion as the body is exposed to, or affected by, the operation of other sedative causes, singly or combined.

From these reflections, Mr Paterson infers, that the indications of cure in scurvy must be, 1. To restore energy to the brain; and, 2. To restore the blood, and the fluids secreted from it, to their original purity. The energy of the brain is to be restored by pure and wholesome air, the food of life, either in a natural way, by living in pure atmospheric air, or an artificial way, by oxygene or vital air, chemically produced and inspired, or by such medicines as are known to contain oxygene, being used either externally or internally. The energy of the brain is also to be restored, by avoiding every thing of a sedative nature, that may render the great cause of scurvy more active; such as depressing passions, hard indigestible food, water impregnated with contaminated or poisonous air, the chewing or smoking of tobacco, the too free use of spirituous liquors, dry, wet, or insufficient clothing, and too long exposure to cold and moisture.

moisture. The blood and the fluids secreted from it may be restored to their original purity, by wholesome air, rendered more active either by natural or artificial mineral acids, and by the opposites of all the circumstances pointed out as assisting and rendering the principal cause of scorbutus more active. These indications, Mr Paterfon thinks, entirely coincide with what he has before said of the effects of the acetum nitrosum in curing scurvy.

To this Treatise is added an Appendix, containing copies of five letters sent to Mr Paterfon, by different navy-surgeons, respecting the effect of the acetum nitrosum, as observed by them. From the testimonies of Mr Beaumont, surgeon to his Majesty's ship *La Prevoyante*, of Mr Fairfowl of the *Lynx*, and of Mr Fleming of the *Cleopatra*, it appears, that this remedy was used by them in cases of scurvy with success; and we sincerely hope, that the future experience of other practitioners will confirm every thing that Mr Paterfon has said in its favour. If that shall be found to be

the case, the introduction of the acetum nitrosum against scorbutus will have a just claim to be ranked among the most important recent discoveries in the practice of medicine.

XIII.

Observations, Anatomical, Physiological, and Pathological, on the Pulmonary System ; with Remarks on some of the Diseases of the Lungs, viz. Hemorrhage, Wounds, Asthma, Catarrh, Croup, and Consumption ; tending to establish a new Pathology of the Lungs, founded on the Anatomy and Physiology of the Parts. By William Davidfon. 8vo. London, 1795.

DISEASES of the lungs, as the author justly observes, are very common in this country ; and as the treatment of them is involved in much obscurity and difficulty, any rational attempt to throw light upon the subject has a just title to be examined with attention and candour : And although the opinion which Mr Davidfon holds respecting the great advantages to be derived from the sparing use of liquids, may, from different circumstances, appear to many to be still doubtful, yet the truth of his opinion

nion deserves at least to be fully ascertained by accurate observation in future practice.

After a general account of the anatomy and physiology of the lungs, Mr Davidson proceeds to make some practical remarks on active hemorrhage from this part of the system. This, he observes, may arise from a variety of causes; and may naturally be divided into two different states: 1. When the hemorrhage alone constitutes the disease; 2. When it is accompanied with more or less of other morbid affections. The more common causes of the first state are, coughing, straining, or any other violent exertion; by which considerable determination of the blood is made to the lungs, from which proceed rupture, and consequent hemorrhage. If this rupture be considerable, great bleeding will most probably ensue; and, according to Mr Davidson, consumption will very generally follow. But he adds, that since the idea of moderate drinking in diseases of the lungs occurred to him, he has had many patients under his care in this first state of the disease, and
has

has succeeded in preventing consumption far beyond his most sanguine expectation.

In the second state of pulmonary hemorrhage, when it is attended with other diseases, as tubercle, abscess, or induration, the ulceration, Mr Davidson observes, is not the consequence, but the cause, of the hemorrhage. This state, however, he considers as comprehending all wounds penetrating the lungs, as by ball, sword, or bayonet, in the cure of which also he contends, that a moderate use of liquids is of infinite importance.

After pointing out this distinction, Mr Davidson proceeds to the treatment, which includes both states of the disease. He ranks the remedies in the following order; bleeding, purging, limitation of liquids, saline nauseating medicines, blisters and ligatures on the extremities. On each of these he makes a few remarks. Respecting several of them, his sentiments are very much the same with those of other writers. But he considers the limited use of liquids as being the grand principle upon which the hinge of

success, in treating pulmonary hemorrhage, must turn.

As the body in a healthy state is continually employing and discharging a particular portion of liquid, it is, he admits, necessary that a certain quantity should be taken. But it commonly happens, that from pleasure, or an evil habit, we drink much more than is required; and by this means, Mr Davidson thinks, we over-distend the vessels, and embarrass Nature in many of her salutary operations. In health, he observes, the quantity absolutely required is very inconsiderable; and in sickness, we often drink too much. This, he thinks, has constantly been the case in pulmonary diseases, and particularly in hemorrhages from the lungs, according to the common method of treating them. Practitioners, he adds, had surely forgotten, that the chief cause of rupture and hemorrhage, and the chief impediment to the cure, was the distension and too great fulness of blood-vessels, otherwise they would not have added to this fulness and distension by their plentiful dilution.

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How far important advantages may really be derived from a very limited use of liquids in cases of pulmonary hemorrhage, can alone be determined by future and extensive experience: and the testimony of Mr Davidson is certainly a sufficient foundation for giving it a fair trial. His reasoning, however, respecting the ground upon which this abstinence from liquids operates, is certainly liable to strong objections. There is but little reason to fear, that, from the introduction of mere watery fluids, a plethoric state, or too great fulness of the blood-vessels, will ever arise. Mere watery fluids speedily introduced, are as speedily evacuated; nay, in some cases, they are the most effectual means of increasing discharges; in-
 somuch, that a late practitioner of great eminence contended, that if there existed in nature any panacea, or universal remedy, it was pure water; and certainly, in most diseases, there is hardly any article from which less is to be dreaded, while in many a very copious use of it may be of considerable service. But, notwithstanding this, there may be still much truth in Mr David-
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son's practical observations; and a limited use of liquids may be found of great use in pulmonary hemorrhages.

To these general remarks, Mr Davidson has subjoined several histories of particular cases, in which a very limited use of liquids was directed, and from which, he thinks, the reader may be convinced, that this practice is not only of infinite importance in the treatment of hemorrhages in general, but is also more particularly so in that of active hemorrhage from the lungs. Here, however, it is to be observed, that in these cases, besides the limited use of liquids, other remedies, particularly blood-lettings, were employed. It is therefore difficult to say, how much was with justice to be attributed to abstinence from fluids. But these cases at least clearly demonstrate, that this injunction was not productive of any bad effect, and that most probably it was attended with some advantage. They therefore give strong encouragement to future trials.

Mr Davidson next presents us with some observations and practical remarks on asthma. In this disease also he contends for the efficacy

cacy of a moderate use of liquids : and he informs us, that in several instances in which he has had an opportunity of trying this practice, it has been attended with success. In confirmation of this, some particular cases are subjoined.

General remarks on pulmonary consumption, with some observations on catarrh and croup, and on the seat, origin, formation, and termination of tubercles, are the subjects of the next chapter of Mr Davidson's work. In these diseases also he contends, that the increased fulness of the vessel which evidently exists, points out a contrary method of cure to that commonly made use of, viz. a spare use, instead of a plentiful use, of diluents ; and in particular he observes, that while we endeavour to prevent the formation of tubercle, or when formed to promote its absorption, by vomiting, purging, or other remedies, a due abstinence from liquids, by allowing greater freedom of circulation through the lungs, and leaving the absorbents more liberty to act, as well as permitting the proper expectoration to take place, will be of considerable service, and should be constantly kept in view.

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In his observations on the treatment of ulceration of the lungs, and pulmonary consumptions, he remarks, that from a due consideration of the causes, the following indications of cure may be derived. 1. To place the lungs as much as possible in that easy quiet state in which we would place an external part affected with an irritable ulcer, or where certain circumstances exposed that part to irritation, by removing every impediment to the proper and easy exercise of their natural functions. 2. To regulate the application and inhalation of the atmospheric or other airs or vapours, so that the actions of the internal ulcerated surface may be either increased or diminished, according as circumstances shall require. 3. To direct properly the natural powers of the whole pulmonary system, in the due performance of its natural functions, to excite the action of its different branches if too languid, and to restrain them if too active. He makes some remarks on many different remedies which have been employed with the view of answering these indications, and, with others, strongly recommends

mends moderate drinking. This, he thinks, has often been adopted without being attended to ; and a cure has been accomplished by means of it.

In this way we are, he thinks, to account for the recovery of most of these consumptive patients who have been cured by a voyage to Lisbon, to the West Indies, or the like. In the first place, they are generally, he observes, sick on first going to sea ; and if they do not vomit, they are at least several days without drinking much liquid ; and indeed the water is in general so indifferent, that they drink but little during the voyage : And if they be also affected with continual vomiting, which often happens, it will be readily conceived, that the blood-vessels will be left sufficiently empty. Thus, therefore, are the lungs, in Mr Davidson's opinion, left at ease, while the change of air, and the sedative effects of the ship's motion, may, he thinks, perhaps assist in accomplishing a cure. Mr Davidson concludes his remarks on this subject by giving a particular history of two cases. One of these was a consumption where the lungs were so much diseased, that the patient had
no

no chance of recovery. Even there, however, Mr Davidson thinks, that by a limited use of liquids the symptoms were much relieved, and the life of the patient prolonged. In the other, a case also of pulmonary consumption, by the regimen and medicines directed, the patient was completely cured in the course of five weeks.

To this Treatise is subjoined an Appendix, containing observations on some articles of the *Materia Medica*, particularly on the *rosa rubra*, *flores chamæmeli*, *sarfa-parilla*, *cicuta*, *stramonium*, *hyosciamus*, and *aconitum*. Treating of the *cicuta*, he strenuously contends, that this article possesses direct sedative properties, and that by them alone it has cured, or assisted in the cure, of the various diseases for which it has been given. This, he thinks, is demonstrated by almost all the cases published on the subject, where the particular effects are properly related: And he contends, that the *stramonium*, the *hyosciamus*, and the *aconitum*, possess also certain sedative powers resembling those of the *cicuta*, in consequence of which he thinks much benefit may be obtained from them.

XIV.

*Joannis Christiani Reil, Med. et Chirurg. Doct.
Prof. Therup. Pub. Ordin. Directoris Scho-
læ Clinicæ, Civitatis Halensis Physici, Acad.
Nat. Curios. Sodalis Memorabiliam Clinico-
rum Medico-practicorum. Fasc. IV. 8vo.
Halæ, 1795.*

IN the volume now before us, Dr Reil, already well known to the medical world by many valuable publications, and particularly by the former part of his *Memorabilia Clinica*, continues to present to the public those interesting observations which have occurred to him in actual practice.

We are here first presented with some observations on that disease of the palpebræ which has the name of *Ectropium*. A girl, ten years of age, was seized with an erysipelatous inflammation, occupying the region of the right-eye. By the use of emollient cataplasms, and other proper remedies, it terminated in a superficial sphacelus, chiefly occupying

occupying the superior palpebra of the right-eye. The gangrened parts being separated, there remained an ulcer occupying the whole external skin of the palpebra from the eye-brow to the very edge of the tarsus. Upon the healing of this ulcer, the external skin of the palpebra was so much shortened, that the edge of the tarsus adhered to the eye-brow. The consequence of this was a very considerable ectropium, and the swelled internal cuticle of the palpebra was turned out to such a degree, as to occupy the whole aperture for the orbit of the eye.

In this situation she was brought to the clinical school. The orbit of the eye then appeared as if completely filled with a piece of raw flesh, which so completely covered the bulb of the eye, that it was with difficulty it could be raised, by the aid of forceps, so as to shew the bulb of the eye below; which, however, upon examination, was found to be found. This pudding-like mass was cut off, and the external contracted part of the eye-lid was directed to be frequently rubbed with emollient ointment, while attempts were made to draw it down
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by means of adhesive plasters. But in no long time, from the tumor again gradually arising, it obtained nearly the same appearance as before. It was then determined to make an incision on the external skin of the eye-lid. Accordingly the tumor was again removed, and an incision was then made, though not without great difficulty on account of its narrowness, through the whole length of the superior palpebra. After cutting through the skin by means of a scalpel, the cellular membrane, every where adhering and tense, was dissected. The wound was first dressed with lint; but afterwards, when it began to suppurate, bits of sponge-tent, accommodated to the shape of it, were introduced, and the whole retained by adhesive plasters. By these means the girl was at length cured, and the wound consolidated. The palpebra indeed remained shorter than natural. But afterwards, from being frequently rubbed with emollients through the day, and drawn down by adhesive plasters during the night, it was by degrees wonderfully elongated.

Dr Reil tells us, that he has frequently

seen the ectropium of the inferior palpebra in boys, from a scrophulous cause, which, after premising antiphlogistic medicines, was cured by scarification, and a liniment prepared of the spirit of salt and rose-water, without the necessity of any other operation. He concludes his observations on this subject with some remarks on the causes of the ectropium, in which he endeavours, from many different arguments, to prove, that faults in the form and elasticity of the tarsi operate, in many instances, as remote causes of this disease.

After some observations on prolapsus of the vitreous humour succeeding the operation for the cataract, Dr Reil next relates a case of incysted dropsy of the breast. A professor of law, sixty-five years of age, a man of middle stature, and of a robust and rather corpulent habit of body, had for a long time enjoyed good health and sound respiration; insomuch, that sometimes, during his academical labours, he had lectured nine times in the day. But about ten years before, he had been affected with the influenza, which, being neglected, had terminated

nated in an obstinate catarrh. His cough was dry in the night, but attended with a troublesome discharge of watery mucus during the day. Six months after the commencement of this disease, he began to complain of an uneasy and peculiar sensation in his breast, which was increased by speaking, so that he was obliged to desist from lecturing. In the beginning of his disease, a long walk excited those distressing sensations, but afterwards it ceased to have this effect.

He gave different accounts of this uneasy sensation at different times : sometimes it was under the form of a tensive pain, extending from the scapula to the loins ; sometimes he had a sensation as if the lungs were hanging loose from the scapula ; sometimes as if they were drawn down by a rope within the thorax ; and at other times he felt as if something were constantly moving within his thorax. In the progress of his disease, the cough left him, returning only at intervals three or four times in the year ; and sometimes for a quarter of a year, or even longer, he enjoyed tolerable health :

But he continued silent and melancholy, shunning society, as his uneasiness was always renewed and augmented by speaking. Sometimes, by the advice of his physicians, he tried to resume his academical prelections; but was always obliged to give them up, from the uneasiness which the speaking occasioned.

Notwithstanding this, all the functions went on in a natural way. He was corpulent, and of a florid complexion: He had no dyspnœa; he could make a long and deep inspiration without any uneasiness: He lay with perfect ease on both sides, and also on his back: His pulse was regular, and he was affected with no palpitations. In short, all those symptoms were absent which could be supposed to indicate any idiopathic disease of the lungs. Many physicians who were consulted, therefore, looked upon his complaint as imaginary, and none of them discovered the real cause of his affection.

He tried a great variety of remedies, and used different mineral waters, without any benefit. At length, upon a severe return of his cough, a very copious expectoration
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took place, of a mere watery fluid, to such an extent, that in a quarter of an hour a handkerchief was as thoroughly wetted as if it had been immersed in water. At this time, during a strong fit of convulsive coughing, he discharged, by expiration, a fluid which had a peculiar, sweet, and at the same time somewhat fetid smell, which not only filled his bed-chamber, but even the whole house. This halitus did not seem to be emitted upon every expiration, but only upon severe coughing. In this situation he was attacked with stertor in breathing, which was soon afterwards followed by death.

On the dissection of his body, the abdominal viscera appeared in every respect to be sound; and there was every where a great abundance of fat: The lungs on the left side of the thorax were free and sound, as well as the heart; and the pericardium contained a moderate quantity of water: The lungs in the right side of the thorax were united by a firm adhesion to the sternum and part of the ribs; and in attempting to separate them, the dissector suddenly

cut into a large cavity, from which a watery fluid, of a light yellow colour, not unlike corrupted milk, rushed out with considerable force. There was altogether a very large quantity of this fluid, and it emitted the same peculiar and specific smell which had been observed in the air discharged by expiration some time before his death. From the bottom of the sac, a thicker and honey-like matter was obtained by means of a sponge; and after the liquor was completely evacuated, a simple cavity remained.

The lungs of this side were compressed towards the bronchia, so as hardly to exceed the size of a man's fist. They were so condensed as to resemble liver, and were of a dark black colour, like coagulated blood. They were, however, of an uniform substance, and there were no partial schirrhosities, or vomicae. The pulmonary artery, before its insertion into the diseased lungs, was dilated, while the venous vessels were contracted. There was no vestige whatever of the fluid contained in the sac to be met with in the aspera arteria, or bronchiæ. Dr

Reil

Reil therefore thinks, that the specific odour observed before death must have arisen from a palsy of the sac, by means of which vapours were transmitted through it.

Dr Reil justly considers this case as in several respects very remarkable; particularly from the fatness of the body, and total want of hectic fever, notwithstanding the local disease; from the periodical cough, and the sudden death of the patient, without any increase of the local cause.

Some experiments concerning the effects and use of the calces of bismuth and zinc, constitute also an important article in this collection. Some years ago, when Dr Kercksig visited Halle in the prosecution of his medical studies, Dr Reil had formed the resolution of writing a complete history of these two articles. In the experiments which he was then engaged in making, Dr Kercksig assisted him with great dexterity. With the detail of these experiments, together with some corollaries deduced from them, we are here presented.

A young woman was admitted into the hospital, labouring under amenorrhœa and

an ulcer of the foot, from which there was regularly a discharge of blood every fourth week, for the space of some days. Six powders were ordered for her, each containing twelve grains of the calx of bismuth. From a dose taken daily, she was affected with slight nausea and uneasiness at stomach; she had gentle moisture on her skin during the night, and her stools became more frequent and more loose. Soon after this, some stomach-complaints took place, succeeded by a tertian fever. Upon this the bismuth was omitted, and proper remedies for the fever were prescribed, by means of which she was perfectly recovered on the twenty-second day. The day following, the bismuth was repeated, and she took fifteen grains, with as much sugar, twice a-day. This, continued for some days, produced no effect but moisture on the skin. On the thirty-seventh day, the bismuth was repeated, to the extent of a scruple twice a-day, and still without any uneasiness, or any other obvious operation than slight moisture during the night. Afterwards the dose was increased to half a drachm, without

out inconvenience. She thus took, in all, during the space of 136 days, very near eight ounces of the calx of bismuth, without any disorder of the function of digestion, or any affection of her general health.

A young woman, in a good state of health, began the use of the calx of zinc on the 5th of August 1792: she first took six grains twice a-day, and the dose was soon increased to twelve. This produced a slight nausea, and some uneasiness at stomach. On the 12th of August, the dose was augmented to fifteen grains; from which there arose considerable uneasiness at stomach, and nausea succeeded by augmented heat; but these symptoms were only of short continuance. On the 16th of August, the dose was augmented to a scruple, with the same effects as before; and this dose was continued till the 29th of September: by which time she had taken four ounces and an half of the flowers of zinc, without any affection of her general health. During this time, a large ulcer of the foot, under which she had laboured, was completely healed.

A female, in the 19th year of her age,
recovered

recovered from the venereal disease, was ordered six grains of the calx of zinc twice a-day. The first doses were followed by nausea, anxiety at the præcordia, heaviness at stomach, vomiting, colic-pains, and frequent loose stools. On the third day, nausea occurred without vomiting; but she had disturbed sleep, and sweated, during the night. On the sixth day, the dose was increased to twelve grains; from which the same symptoms as before, with vomiting, were produced; and she complained of a metallic taste in her mouth. Soon after, however, the vomiting ceased; and on the tenth day the dose was augmented to fifteen grains. From this she had much nausea and considerable uneasiness, but without a return of vomiting; and her menses, which, during the syphilitic complaint, had been absent, now appeared.

As the powders had constantly sickened her, she now refused to take any more of them; and it was therefore exhibited under the form of pills. Under this form she first took daily two scruples of the flowers of zinc, and afterwards a whole dracham, without

out any inconvenience, which Dr Reil ascribed to its gradual solution. In the space of twenty-two days, she had taken upwards of an ounce and a half of this medicine, without any affection of her general health.

To two young rabbits of the same litter, Dr Reil exhibited in the morning a scruple of the flowers of zinc. From this there arose lassitude, want of appetite, a loose belly, and the loss of their usual agility; but no vomiting: A second day, from the same quantity, the same phenomena were produced: On the third day, from the same dose, there was a very great loss of strength: and on the fourth, death.

On the dissection of the one, which, before its death, had been subjected to considerable diarrhœa, the intestines were found filled with a frothy green liquor, and the stomach inflamed at different parts, especially at the pylorus. The stomach contained a small quantity of food, and that in a fluid state.

In the other, which had died without diarrhœa, the stomach was filled with ingesta, although for two days before its death

it had eat nothing. On the back-part of the stomach there was an eschar, about the size of a bean, similar to what a caustic could have produced, which penetrated to the exterior coat of the stomach. To this the calx of zinc, as well as some alimentary matters, adhered. In the smaller curvature of the stomach, between the cardia and pylorus, there was also an eschar, but of less size.

Another rabbit, to which Dr Reil gave fifteen grains of calx of bismuth daily, on the third day lost all appetite. Its hair stood upright, its belly was bound, and its urine flowed profusely : it could not walk steadily, and was affected with dyspnœa. There took place also a discharge of blood from the nose ; soon after which it died. Upon dissection, Dr Reil found the stomach distended with ingesta, and a little inflamed at the cardia. The lungs in the right-side were uncommonly red and hard, and in different places seemed to be obstructed by an exudation of the gluten of the blood.

As the subject of another experiment, he took four rabbits ; to two of which he gave daily

daily five grains of the calx of bismuth, and to the other as much of the calx of zinc. In this gradual manner they swallowed several ounces of these articles, and seemed to enjoy good health. But at the end of some months after the experiment was begun, they all died in succession.

One of the rabbits which took the calx of bismuth became very lean; some of the mesenteric glands were enlarged; and both the mesentery and omentum abounded with *Tæniæ hydatigenæ*. The stomach also appeared to be contracted between the cardia and pylorus.

In the other which took the calx of bismuth, the intestines, and especially the cæcum, were stuffed with indurated bloody fæces. The intestines in different places were inflamed, and the villous coat of the stomach was marked with several black gangrenous spots. But it seemed to Dr Reil to have died from constipation.

Upon the dissection of one of the rabbits which took the calx of zinc, there was a remarkable constriction about the middle of the stomach, its villous coat was of a white

white colour; and the calx of the metal seemed to adhere to it so firmly, that it could hardly be rubbed off.

In the body of the other rabbit which took the calx of zinc, nothing particular was observed, excepting that the stomach was stuffed with food.

From these and several other experiments, of which Dr Reil has given a particular detail, he draws the following conclusions.

1. That the calces of bismuth and of zinc may be given in larger doses than has hitherto been common among physicians.

2. That notwithstanding this, it is still the duty of a prudent physician, to employ with some caution articles proving fatal to brutes, in the manner that the calces of bismuth and zinc were observed to do.

3. That the primary virtues of the bismuth and zinc depend upon their influence as irritants and restringents.

4. That from these primary virtues several other secondary effects occur; and particularly, that they act in some degree as strengthening medicines; that they absorb acids; that they augment all the secretions
and

and exertions; that they excite vomiting, open the belly, and produce sweating; that they possess some degree of an anthelmintic power; and, finally, that they operate as antispasmodics.

Dr Reil thinks, that the sedative power of these calces is to be inferred from experience alone, and not from any investigation of their constituent parts. They change, he tells us, the living solid in a manner not to be expiscated, and thus remove the disposition to inordinate action. They are preferable, he observes, in many cases, to other antispasmodics, as they are without either smell or taste, as they do not increase the heat of the body, and as they have a tendency to promote diaphoresis.

Elaborate dissertations on polycholia, febris, and febris cholopoesis occupy the greater part of this volume of our learned and ingenious author's memorabilia.

XV.

Dissertatio Medica de Hydropo Plethorico. Auctore Carolo Joanne Christiano Grapengieffer, M. D. 8vo. Gottingæ, 1795.

IN the Treatise now before us, we are presented with a learned and ingenious dissertation on a modification of dropsy, which, according to the author, is no rare occurrence in practice, although but rarely understood, while, at the same time, it requires a mode of treatment very different from what is commonly employed in dropical affections. For these reasons, he considers it as a subject well meriting the attention of every practitioner.

Although this disease has not been professedly treated of by any former medical writer, yet Dr Grapengieffer observes, that many detached cases are to be met with, of dropsies cured by blood-letting; and he considers this disease as hitherto described only under the title of Hydrops Venesectione
curatus

curatus : And he quotes many examples of cases of this kind, both among the ancients and moderns.

This disease, according to our author, may be best denominated Hydrops Plethoricus. It appears, he tells us, under two distinct forms : Sometimes an inflammatory disposition is very obvious, and not unfrequently fever and topical inflammation attend it : but sometimes the cause and nature of the disease is so obscure, that a diagnosis cannot be formed but with great difficulty, or only after death ; unless, by the force of nature, a critical hæmorrhage shall ensue. He therefore considers this disease as comprehending two species, the Hydrops Plethoricus Acutus, and the Hydrops Plethoricus Chronicus seu Suppressus. Of each of these species he next proceeds to give a particular description.

The acute Hydrops Plethoricus, he observes, occurs only with the robust and well-fed during the prime of life ; and is more frequent among smiths and carpenters than with other professions. In the beginning it often appears under the form of asthma ;

and not unfrequently prior to its commencement, the patient has laboured under some inflammatory affection of the breast. Soon after this, he observes an uncommon difficulty of respiration upon walking ; he afterwards becomes affected with constant dyspnœa, and with watchfulness ; it becomes impossible for him to lie on his back, and he suddenly starts from sleep, with a sense of suffocation. Under this form the hydrothorax plethoricus acutus manifests itself ; and this our author considers as the most frequent modification of that disease. It often, he observes, precedes dropy of the cellular membrane, extending over the whole body. The ascites plethoricus is a most rare disease, but is sometimes also observed.

During the whole course of this modification of dropy, the pulse is full, hard, and strong. If, however, from a superabundance of fluids, the vessels happen to be relaxed, then the pulse, though still full, begins to be slow. The urine is scanty and lateritious ; pains are felt over the whole body, principally in the belly and loins : The
face

face appears somewhat swelled; there is a loss of appetite; and a slight cough, with scanty expectoration of mucus. Purgatives and diuretics are of no service; nay, they even render the urine more scanty, and the swelling more tense. Blood drawn in this dropsy always shews an inflammatory crust; and every venesection is attended with relief, the breathing becoming immediately so free, that the patient can lie on his back or either side.

If the common method of cure be employed, the disease often puts on a dreadful appearance. The swelling of the body increases to actual rupture; violent pains take place, attended with burning fever and intolerable thirst. Often with the mucus a proportion of blood is expectorated; delirium occasionally supervenes; and the patient is sometimes suddenly cut off by convulsions or apoplexy. In general, the course of this disease, especially after the swellings manifest themselves, is terminated in a short time.

Dr Grapengiesser next gives the history of the hydrops plethoricus chronicus. This

disease, he observes, has few peculiar symptoms, and of course the diagnosis is very difficult. It arises either in a secondary way, from the acute hydrops plethoricus arising from a less active cause of inflammation, and improperly treated; or in a primary way, where plethora occurs, with persons of a lax, spongy, and debilitated habit, leading a sedentary life.

Often the patient, some time prior to the attack of this dropsy, is in an infirm state; to remedy which, cordial, stomachic, and strengthening medicines have been employed; but with the effect of increasing the cause of the disease. This valetudinary state increases; the appetite is almost totally lost; the abdomen gradually swells, and becomes hard; and the face, with a cachetic appearance, gets a livid hue. Difficulty of breathing, with œdematous swelling of the feet, legs, and back, manifest themselves: The urine becomes scanty, sometimes almost entirely suppressed: The strength is very much impaired; and the pulse so small, that the vessels seem to be almost empty, though sometimes it is quick

quick and sharp. Flushing of the face, and redness of the eyes, are often observed when the patient is in an horizontal posture, and then he often complains of congestion in the head.

The swelling now extends over the whole body, and the disease, with all its symptoms, increases : The excretion of urine ceases almost entirely : the strongest diuretics and hydragogues are attended with no success ; and the antiphlogistics with very little : The difficult respiration increases to orthopnoea ; which, however, is greatly relieved by venesection, although the remedy is but seldom employed. The power of nature, even in this last stage, sometimes overcomes the disease by a critical hæmorrhage from the nose : But not unfrequently, by the occurrence of convulsions and apoplexy, the disease terminates in death.

No other spontaneous crisis but hæmorrhage from the nose has been observed : But this has been often remarked to an excessive degree. Sometimes it has been observed to last through the greatest part of a night, so that the pulse almost totally failed,

and the patient was in the greatest danger of deliquium animi. It has then been thought necessary to employ means for stopping it. But even in these cases, within the space of a few hours after the hæmorrhage, the pulse becomes more full, hard, and strong, to a wonderful degree. Even during the hæmorrhage, the patient has had an increased discharge of urine, with great relief; and this has continued till the whole swellings have disappeared. If the hæmorrhage is succeeded by fever, which not unfrequently happens, the health and strength of the patient is recovered in a shorter time.

In the dissection of those dying of this disease, collections of water have been found over the whole body, but particularly in the cavities of the thorax and cranium. The large vessels have been found turgid, being distended with much blood. Where the disease has been of the acute kind, considerable inflammations have been observed.

With regard to the proximate cause of this disease, the author remarks, that plethora,

thora, whether real or spurious, and from whatever cause it may arise, must always disturb the equilibrium in the animal economy; and that, by rendering the circulation laborious, it may induce dropsy. The predisposition to the acute form of this disease, he considers as arising chiefly from a robust habit of body, a good appetite, good digestion, too great sanguification, and the omission of accustomed venesection. To the chronic species, again, those are chiefly predisposed, who are of a lax and spongy habit, advanced in life, have a good appetite with bad digestion, and lead a sedentary life. Hence this disease is most frequently observed in monasteries.

As exciting causes of the hydrops plethoricus acutus, he enumerates the suppression of accustomed hæmorrhagies, inflammations of internal parts, the repulsion of exanthemata, obstructions to perspiration, and the sudden checking of diarrhœa.

The prognosis in this disease, Dr Grapengiesser observes, both as far as it can be deduced from the cause, or from the method of cure, is favourable: for it may be effec-

tually removed by blood-letting and antispasmodics. Every thing, however, depends on the diagnosis: If this be obvious, we may judge favourably of the disease: Hence the prognosis is less favourable in the chronic species of the hydrops plethoricus, for there the diagnosis is peculiarly difficult. But even in the most acute form, when, with the dropsy, the patient is at the same time affected with severe inflammation, the combination of these diseases is highly dangerous, especially if the plethora has been aggravated by the repulsion of exanthemata.

Since universal plethora is the foundation of the proximate and efficient cause of this disease, the cure, our author thinks, must always be accommodated to two indications. 1. The removal of the cause, that is, depletion of the whole body, and of the vessels distended from the quantity of blood circulating laboriously: 2dly, The removal of spasm arising from the exciting causes; such as the repulsion of eruptions, suppressed perspiration, interrupted crisis, or the like.

With

With these intentions, he points out blood-letting as the first remedy, and indeed as being almost the only thing necessary, and of itself sufficient for fully overcoming the disease. For he tells us, that, in an easy and excellent way, it removes the cause of the disease and the disease itself at one and the same time; it resolves spasm, and restores to the system the power of absorbing extravasated serum.

Sometimes it is only by repeated blood-letting that the disease can be combated; and the longer the blood-letting has been delayed, the more obstinate is the disease. Moderate blood-lettings, repeated according to circumstances, are more advantageous than very large ones: And if there be symptoms of any particular viscus being affected, especially of peripneumony, topical blood-letting is often highly useful. If blood-letting alone shall not sufficiently increase the excretion of urine, the use of gentle diuretic salts, such as crystals of tartar or nitre, in a very dilute solution, with a little of the oxymel of squills, although before

fore they had no effect, will very much augment the discharge.

Opium, the best and the safest anodyne, than which no article has more influence in allaying spasms, is often superior to every thing. If, after blood-letting and refrigerants, the urine should not flow on account of spastic tension, and if the pains over the whole body should not cease, opium will often be productive of the best effects, as augmenting the former, and mitigating the latter. Even in other species of dropsey, when attended with spasmodic pains of the belly, Dr Grapengieffer tells us, he has found the best effects from opium.

In no species of dropsey, according to the author, is the free indulgence in the use of liquids, and antiphlogistic regimen, more required than in the hydrops plethoricus. And he is persuaded, that all that has been said respecting the beneficial effects of acedulated drinks, copiously introduced, and of antiphlogistic regimen in certain cases of dropsey, serves to demonstrate the frequency of this modification of the disease.

XVI.

Ufus Lapidis Suilli in Lithiasi Renali. Auctore
 Sam. Liljeblad, M. D. Societat. Reg. Lit.
Ups. adjunct. 4to. Upsaliæ.

ALTHOUGH the mineral kingdom affords a smaller number of articles employed for the purposes of medicine, than the vegetable, yet it is well known, that it affords some of the most useful and active. The subject of this Treatise, according to the account given by Dr Liljeblad, would appear to be of that number. It is, he tells us, found in sufficient quantity in Sweden to be employed for economical purposes; but hitherto it has been but little known, even to the most eminent physicians, although well meriting their attention.

The lapis suillus, as it is called, is an earthy stone, which has long been employed as an useful remedy against the diseases of domestic animals, and was probably, from analogy, afterwards introduced against those
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of the human body : and it has particularly been found to afford great relief in cases of nephritis calculosa. From farther observation and experience, there is, our author observes, great reason to believe that it will prove a very valuable remedy.

It consists, he tells us, of a calx united to a bituminous matter, or mountain oil, which, even to the external senses, particularly that of smell, indicates medical properties. It derives the name which it holds among the Swedish mineralogists from the use which has been made of it, against the diseases of swine, for a very long period. It has been supposed particularly to furnish a very efficacious cure with these animals in cases of bloody urine, and other affections of the urinary organs. It has also in Sweden the name of Orstea : and in the mineralogical systems, belongs to that genus of earths which are termed Calcareous. In the system of Cronsted, it has the name of *Terra calcarea phlogisto simplici mixto* ; in that of Linnæus, of *Bitumen suillum marmoreum fætidum* ; and in that of Wallerius, *Spatum opacum frictione fætidum*. It is a real calcareous earth, possessing

possessing all those qualities by which the genus of calx is distinguished from other genera of earths. Thus, by the aid of fire, it is reduced to a white powder, and obtains causticity. It effervesces with acids. By means of the vitriolic acid, it is precipitated under the form of gypsum; and by means of the muriatic acid, it is converted into a fixed ammoniacal salt.

The author therefore concludes, that the greatest part of it consists of calx, and the least part of asphaltum, or mountain-oil. The celebrated Scheffer mentions, that the lapis suillus, distilled by him, hardly yielded any vestige of oil, although it gave out its acrid smell. But Heirne affirms, that from the distillation of four pounds of it, he was able to obtain a little oil. Yet this smallest constituent part gives it that character which can be most readily detected by the senses, viz. that, of emitting a foetid or hepatic odour on friction. The lapis suillus is readily distinguished from calcareous earth combined with phlogiston and the vitriolic acid, which also emits a fetor on friction, and which has
been

been termed the *Lapis hepaticus*, by the latter being of a harder texture, and not fermenting with acids.

In Sweden, four remarkable varieties of the *lapis fuillus* are found.

1. *Lapis solidus particulis impalpabilibus ater.*
- 2.— *granulatus, seu particulis granulatis fusco-ater.*
- 3.— *squamosus particulis micaceis.*
- 4.— *crystallinus, spatofus, nigrescens, ferruginus, albo-lutescens.*

The *lapis fuillus*, which is chiefly met with in the shops in Sweden, is of the fourth kind. It cannot be affirmed that this variety is more powerful than the others; but it was employed in the cases which are afterwards detailed. For medical use, especially with the human species, the purest crystals are selected, which are reduced to a subtile powder in a glass mortar. The powder thus obtained is of a white or grey colour, which is exhibited under the form of bolus or electuary.

After this account of the *lapis fuillus*, Dr Liljeblad next makes some observations on
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the symptoms of lithiasis renalis. Here, however, he does not think it necessary to enter into a full detail, or to say any thing of the generation of calculi in the urinary organs. He reckons it sufficient to point out some of those severe symptoms, in mitigating which, and in promoting a more easy transition of the calculi through the urinary passages, the lapis fuillus has been found to produce the most remarkable effects.

When calculi, formed in the pelvis of the kidney, are moved from thence, and pass into the ureters, spasms are excited in these organs, by which both the heterogeneous body itself, and likewise the urine, are retained. From thence there arise the most acute pains in the back, extending to the ilia and coxæ. Either no water is discharged, or a very small quantity only, tinged with blood. Affections also extend to other neighbouring organs, particularly to the intestinal canal. There often occur severe colic pains, tension of the under part of the abdomen, a slow belly, nausea, and obstinate vomiting, pain and retraction of

the testicles, and stupor of the leg in the affected side.

Distressing attacks of this kind, with a greater or less degree of severity, are frequently found to return during a great part of life. If we yet know any remedy, on which we can depend, as mitigating this evil, it is, our author affirms, the lapis fuillus. In proof of this assertion, we are here presented with a particular detail of several cases in which it was employed.

The first case is that of a man who had long laboured under calculus renalis. But, by the aid of the lapis fuillus for the space of four years, he had been much relieved from the severity of the disease, and enjoyed much better health than before. Having, however, neglected his medicine on the night between the 12th and 13th of December 1686, he became subjected to a severe return of his complaints. He passed an unquiet night, with a sense of coldness in his feet, and tension in the abdomen. After rising out of bed, and attempting to walk up stairs, he was seized with so violent a pain in his left side, that he could not stir. His
abdomen

abdomen became still more distended with flatulence; and he could obtain no discharge either by urine or stool. He had immediately recourse to the powder of the lapis fuillus, which he took in a little milk and water. Immediately after swallowing it, a free discharge of wind took place, both upwards and downwards, which was productive of considerable relief. In about a quarter of an hour, he had a discharge by the belly, with a copious evacuation of pale-coloured urine.

Notwithstanding this, the pain of his side was not relieved, but, remaining as it were fixed in the ureter, produced such torture and anxiety, that the sweat flowed in drops from his brow. In the space, therefore, of half an hour, he took a second dose of the powder; upon which the tension of his abdomen, vomiting, and spasms, suddenly ceased: Soon after, he had another loose stool. The pain of his side, although its violence was somewhat abated, still continued to be distressing. The patient therefore thought it adviseable to put his body in different postures, that a free opportunity

be given for the descent of the calculus. A quarter of an hour had scarcely elapsed, till the pain of his side entirely vanished. A sense of pressure also was felt in the bladder, with some desire to evacuate urine.

The patient, rejoicing at this, wished, however, to retain it for some time, that a larger quantity might be collected. In about eight or ten minutes, the desire for evacuation being increased, he discharged from his bladder a quantity of dark-coloured grumous urine, with from fifteen to twenty calculi of different sizes. After this, all his symptoms disappeared. From this case it is inferred, that the employment of the lapis suillus cannot prevent the collection of calculous matter in the body, but that it is highly useful in promoting the discharge of calculi from the body, and in alleviating the usual symptoms, even when most severe.

The subject of the second case is a respectable man, in the fiftieth year of his age, of a corpulent habit of body. He had long been affected with lithiasis renalis, which a sedentary life and high living had probably accelerated. After various and frequent

frequent attacks of the disease, he had recourse to the powder of the lapis suillus, and it was attended with immediate relief. He had indeed returns of paroxysms, but without severe symptoms. He discharged many calculi of different sizes, and he has now for several years enjoyed tolerable health by means of this remedy. In the beginning, he took half a drachm of it in powder every day; and afterwards he had recourse to it at intervals, as soon as the slightest pain in his back gave suspicion of calculus in the kidney.

The third case is that of a man in the seventy-fifth year of his age, who for the greatest part of his life had enjoyed good health, but about four years before, without any manifest cause, had become affected with a nephritic pain. Various remedies were exhibited to him, with very little benefit, for the space of a year. He then had recourse to the powder of the lapis suillus, and derived from it very great relief. After he had taken it for three weeks, his pains were not only mitigated, but several

calculi also, about the size of barley-corns, passed from the ureters into the bladder, and were afterwards discharged from thence. The patient also found, that the pain of his abdomen, spasms, and other symptoms, were much mitigated, after the use of this remedy.

At first, he took it to the extent of a tea-spoonful twice a-day; and as the disease decreased, he employed it less frequently, using it only every second or third day: but upon any threatening of return, he had always recourse to a dose of it. He soon recovered better health after the use of it, and remained almost as free from disease as could be expected at his advanced age.

It was remarkable, that in this case the calculi discharged before the use of the lapis fuillus, were of a solid, compact, and hard consistence; while those which were discharged some time after it had been employed were porous and friable. From this it is with some degree of probability inferred, that the remedy has a power of somehow altering the texture of calculi in the kidneys, and that it may be ranked
among

among those remedies which have been styled Lithontriptics.

Besides these, several other cases are here related, in which the powder of the lapis suillus, employed to the extent of about half a dram for a dose, was found to be productive of the best effects. The Treatise is concluded with some general remarks on the cure of lithiasis renalis; in which, after pointing out the indications which are to be fulfilled in combating the disease, 1. From the abundance of a certain acid in the body of every calculous patient, and, 2dly, From the spasmodic affections arising from a consent of nerves, which in almost every case accompany this disease, he endeavours to account for the benefit derived from the lapis suillus, from its antacid and antispasmodic powers. The first of these he considers as depending on the calcareous earth; and the last on the mountain oil, or bituminous matter, which it contains.

XVII.

*Dissertatio Medica de Angina Pectoris. Auctore Ernesto Frederico Schmidt. Gottin-
gæ. 8vo. 1793.*

THE disease which is the subject of this Dissertation, has lately claimed much attention from medical practitioners. There can, however, be no doubt, that in many cases it proves even suddenly fatal: And much yet remains to be discovered, both with respect to its nature, and likewise with regard to the most successful method of cure. Further observations respecting it, therefore, may justly be considered as claiming particular attention.

Dr Schmidt sets out with offering some observations on the name of this disease. He contends, that when we consider the cause and nature of the disease, no name can be more improper than that of Angina Pectoris, which has been given to it by the English physicians. He thinks that the term
employed

employed by Elfner, of Asthma Convulsivum, is much more proper: and as there are several species of convulsive asthma, he thinks it would be best distinguished by a specific name from its cause, and therefore proposes that it should be denominated Asthma Arthriticum.

This specific name, however, is, we may observe, entirely founded on a conjectural, perhaps on a groundless theory. How far gout in any case has a concern in the induction of that disease to which Dr Heberden was the first to give the title of Angina Pectoris, we will not pretend to say. But it is at least certain, that in many of the most remarkable cases of this disease, which have fallen under the observation of the most eminent practitioners in Britain, there was not the smallest reason to believe that they were in the least degree connected with gout. The generic term of Asthma is here also very exceptionable, as being already appropriated to another well-known and very different disease. Dr Heberden gave it the name of Angina Pectoris, from no vague conjecture,

either with regard to its supposed causes or nature, both of which still remain to be ascertained, but from its characterising and most distressing symptom, a peculiar pain or sense of strangling in the breast. And it is certainly much better to name, as well as to define, diseases from obvious symptoms, than from hypothetical opinions.

We are next presented in this Treatise with a short history of the disease. Dr Schmidt considers some histories of cases, described by Hoffman, in his *Consultationes Medicæ*, as examples of this affection. But he allows, that the most accurate histories of this disease have been given by later writers, and particularly by Heberden, Fothergill, Wall, Haygarth, Johnstone, Alexander, Percival, Smith, Parr, Macqueen, Hamilton, Berger, Gruner, and Elsner.

In describing the course of this affection, our author observes, that although it may attack any age, sex, or constitution, yet that it is most frequently observed in men advanced in life. It is also, he thinks, a more frequent complaint in a cold and moist atmosphere, than where the air is serene and dry.

dry. It chiefly attacks the exhausted and debilitated; but has also been not unfrequently observed in persons apparently in good health.

This disease, the author observes, is often preceded by a considerable number of different symptoms; particularly, various stomach-complaints and depraved digestion, spasms of different kinds, convulsions, colic-pains, and transitory pains in the joints. All these symptoms, on the attack of the angina pectoris, either vanish altogether, or at least are much diminished in violence. Besides, they often alternate with the angina pectoris, the patient finding himself entirely freed from that disease, on a return of the former symptoms.

The attack of the disease is particularly marked by severe pain in the breast, especially under the sternum, extending to the arm, and affecting in a remarkable manner the deltoid muscle. This pain is generally of the lancinating, sometimes of the pressive kind, conjoined with a peculiar sense of constriction in the breast, and often the highest degree of dyspnœa: Such an accumulation

tion of blood takes place in the head, that the countenance is swelled, and the patient is distressed with the greatest degree of anxiety: The circulation is much affected, the pulse being frequently contracted, small, and unequal: The paroxysms at first are of very short duration; but in the progress of the disease, they become of longer continuance: Towards the close of the paroxysm, there is generally a discharge of wind, by which the attack never fails to be mitigated.

Paroxysms are excited by any considerable motion of the body, particularly by walking against the wind, by ascending mountains or stairs, by attempting to raise heavy weights, or the like. By degrees they are excited by slighter exertions, such as coughing or sneezing; and at length they will take place without any obvious cause, and even during sleep. During intermissions, the patient often appears to be in a state of the most perfect health. Towards the close of the disease, it often affects the lungs, patients becoming subjected to cough who had none before, and expectorating

pectorating a puriform matter, producing either suffocation or exhaustion.

The inspection of dead bodies has, Dr Schmidt observes, thrown little light either on the nature or cause of this disease. Some, however, have considered morbid conditions discovered in certain cases on dissection, as causes of this affection, such as ossification of the valves of the heart, or of the carotids; preternatural softness of the heart itself; and collections of watery, puriform, or sebaceous matter, in the mediastinum, parenchyma of the lungs, or pericardium.

After some observations on the diagnosis, which is chiefly to be drawn from the peculiar pain of the breast, and on its proximate cause, concerning which different opinions have been entertained, but which our author, with Dr Elsner, is disposed to ascribe to a gouty humour, he proceeds to treat of the cure. His observations on this subject are referred to two heads. First, he treats of the palliative; and, next, of the radical cure.

In the commencement of this disease, the paroxysms in general terminate very soon
of

of themselves, and require only the utmost tranquillity both of mind and of body. But when, in the course of the disease, the paroxysm is lengthened in duration, and increased in violence, the utmost attention of the physician is necessary to prevent death during the paroxysm. In these cases, he points out three indications which the physician ought to have in view: 1st, To take off the spasm; 2dly, To remove the causes inducing the paroxysm, if they continue to act; and, 3dly, To alleviate the most dangerous symptoms which may occur.

With the first of these intentions, antispasmodics are to be employed; and Dr Schmidt particularly recommends musk, naphtha vitrioli, liquor anodynus Hoffmani, dulcified spirit of nitre, extract of cicuta, hyosciamus, and belladonna. He thinks that opium should be employed only in cases of the most urgent danger, as it is on many accounts, in his opinion, contra-indicated in gout. He recommends also the magistery of bismuth, the flowers of zinc, and the spiritus salis ammoniaci anisatus.

Sometimes

Sometimes this disease proceeds from obvious occasional causes, which require that the palliative cure should be differently modified. When repletion of the stomach occurs from food, fordes, or bilious matter, emetics, and clysters, must be premised to antispasmodics; when it arises from gripes, he recommends, as carminatives, the *essentia fuliginis*, *assa foetida*, the *oleum cajaputæ*, &c.; and, finally, when debilitating causes have preceded, such as profuse hæmorrhages, or obstinate diarrhœa, he advises a nutritious and strengthening diet, with the Peruvian bark. In obviating urgent symptoms, the practices employed must be entirely accommodated to occurrences. Thus, on threatening of apoplexy, he advises that recourse should be had to general and topical blood-letting; and on threatenings of suffocation, when it does not proceed from the quantity of blood oppressing the lungs, he recommends irritating stimulants.

The radical cure, Dr Schmidt observes, is in general very difficult, especially if the disease has been of long duration. It is not, however,

however, he contends, to be considered as an incurable disease; and he assures us, he has met with several instances of patients who had laboured under angina pectoris, and were restored to perfect health.

He considers the radical cure of angina pectoris as resting upon two indications: 1. That the cause of the disease should be removed, the morbid matter evacuated, and that part of the body freed upon which the acrimony has been deposited: 2. That a new metastasis of acrimony should be guarded against.

For answering the first of these indications, the removal of the causes of the disease, our attempts must be regulated by circumstances. But the most useful practices are, he thinks, those directed against spurious gout; and thus benefit may be expected from emetics, laxatives, resolvents, and the like. For evacuating the morbid matter, he recommends, as of the greatest service, whatever will tend to promote a free discharge by the surface, such as a flannel shirt next the skin, frictions of the surface, a temperate climate, the warm bath, and various diaphoretic medicines,

medicines, particularly antimonials, and the gum guaiacum, in different forms. To free, by a metastasis, the part of the body on which the acrimony has been deposited, he recommends the use of pediluvium, with a proportion of mustard in the water, frictions of the feet, with volatile alkaline spirit, volatile liniment, or tincture of cantharides. He advises also the application of blisters, synapisms, issues, and even actual cautery.

For fulfilling the second indication, it is, he tells us, necessary that every source of acrimony should be cut off, by avoiding all violent mental emotions; by shunning all food or drink of an acrid or acid quality; and by the use of a mild bland diet, particularly a milk diet; by moderate exercise; by issues and setons, either on the breast or other parts; by preserving a free discharge from all the excretories; and by removing every cause which can either disturb or suppress the secretions, or excretions from the body.

That the body, and particularly that the part which has formerly been affected, may
be

be strengthened and defended against any return of the disease, food of easy digestion, with the plentiful use of diluents, is recommended. He advises also the employment of bitters, of chalybeate mineral waters, and finally, of the Peruvian bark. He affirms, that benefit may also be derived from the use of the cold-bath, and from frequently washing the breast with cold water.

XVIII.

Zoonomia ; or, The Laws of Organic Life. By Erasmus Darwin, M. D. F. R. S. Author of the *Botanic Garden.* 2 vols, 4to. London, 1796.

OF this extensive publication, which unquestionably contains many valuable observations, we cannot here propose to offer any analysis. But to those readers who may not have an opportunity of examining the Work itself, we presume, that a general view of the classes, orders, genera, and species, into which Dr Darwin has distributed the diseases of the human body, may afford some satisfaction. And this we shall simply present to them, without any observations whatever on the comparative merit of this and other arrangements, as affording the most important information to practitioners, respecting the diagnostic marks by which diseases may be best known, and the leading

VOL. I.

O

principles

principles on which they may be most successfully combated.

CLASS I. DISEASES OF IRRITATION.

Or. I. INCREASED IRRITATION.

G. 1. *With increased actions of the sanguiferous system.*

Sp. 1. Febris irritativa—Irritative fever.

2. Ebrietas—Drunkenness.

3. Hæmorrhagia arteriosa—Arterial hæmorrhage.

4. Hæmoptoe arteriosa—Spitting of arterial blood.

5. Hæmorrhagia narium—Bleeding from the nose.

G. 2. *With increased actions of the secerning system.*

Sp. 1. Calor febrilis—Febrile heat.

2. Rubor febrilis—Febrile redness.

3. Sudor calidus—Warm sweat.

—— febrilis, Sweat in fevers.

—— a labore, S. from exercise.

—— ab igne, S. from fire.

—— a medicamento, S. from medicines.

Cl. I.

Cl. I. Or. 1. G. 2. continued.

Sp. 4. Urina uberior colorata—Copious coloured urine.

5. Diarrhœa callida—Warm Diarrhœa.

———— febrilis, D. from fever.

———— carpulosa, D. from indigestion.

———— infantum, D. of infants.

6. Salivatio calida—Warm salivation.

7. Catarrhus calidus—Warm catarrh.

8. Expecto ratio calida—Warm expectoration.

9. Exudatio pone aures—Discharge behind the ears.

10. Gonorrhœa calida—Warm gonorrhœa.

11. Fluor albus calidus—Warm fluor albus.

12. Hæmorrhœis alba—White piles.

13. Serum e vesicatorio—Discharge from a blister.

14. Perspiratio foetida—Fetid perspiration.

15. Crines novi—New hairs.

G. 3. *With increased actions of the absorbent system.*

Sp. 1. Lingua arida—Dry tongue.

2. Fauces aridæ—Dry throat.

Cl. I. Or. 1. G. 3. continued.

Sp. 3. Nares aridi—Dry nostrils.

4. Expecto ratio solida—Solid expectora-
tion.

5. Constipatio alvi.—Costiveness.

6. Cutis arida—Dry skin.

7. Urina parci or colorata—Diminished
coloured urine.

8. Calculus felleus et icterus—Gallstone
and jaundice.

9. Calculus renis—Stone of the kidney.

10. Calculus vesicæ—Stone of the blad-
der.

11. Calculus arthriticus—Gout-stone.

12. Rheumatismus chronicus—Chronic
rheumatism.

13. Cicatrix vulnerum—Healing of ul-
cers.

14. Corneæ obfuscatio—Scar on the
cornea.

G. 4. *With increased actions of other cavities
and membranes.*

Sp. 1. Nictitatio irritativa—Irritative nicti-
tation.

2. Deglutitio irritativa—Irritative de-
glutition.

Cl. I.

Cl. I. Or. I. G. 4. continued.

Sp. 3. Respiratio et tussis—Respiration and cough.

4. Exclusio bilis—Exclusion of bile.

5. Dentitio—Teething.

6. Priapismus—Priapism.

7. Distensio mamularum—Distension of the nipples.

8. Descensus uteri—Descent of the uterus.

9. Prolapsus ani—Descent of the rectum.

10. Lumbricus—Round-worm.

11. Tænia—Tape-worm.

12. Ascarides—Thread-worms.

13. Dracunculus—Guinea-worm.

14. Morpiones—Crab-lice.

15. Pediculi—Lice.

G. 5. *With increased action of the organs of sense.*

Sp. 1. Visus acrior—Acuter sight.

2. Auditus acrior—Acuter hearing.

3. Olfactus acrior—Acuter smell.

4. Gustus acrior—Acuter taste.

5. Tactus acrior.—Acuter touch.

Cl. I. Or. 1. Gen. 5. continued.

Sp. 6. Sensus caloris acrior.—Acuter sense of heat.

7. Sensus extensionis acrior—Acuter sense of extension.

8. Titillatio—Tickling.

9. Pruritus—Itching.

10. Dolor urens—Smarting.

11. Consternatio—Surprise.

OR. 2. DECREASED IRRITATION.

G. 1. *With increased actions of the sanguiferous system.*

Sp. 1. Febris inirritativa—Inirritative fever.

2. Paresis inirritativa—Inirritative debility.

3. Somnus interruptus—Interrupted sleep.

4. Syncope—Fainting.

5. Hæmorrhagia venosa—Venous hæmorrhage.

6. Hæmorrhoids cruenta—Bleeding piles.

7. Hæmorrhagia renum—Bleeding from the kidneys.

Cl. I.

Cl. I. Or. 2. G. 1. continued.

Sp. 8. Hæmorrhagia hepatis—Bleeding from the liver.

9. Hæmoptoe venosa—Spitting of venous blood.

10. Palpitatio cordis—Palpitation of the heart.

11. Menorrhagia—Exuberant menstruation.

12. Dymenorrhagia—Deficient menstruation.

13. Lochia nimia—Too great lochia.

14. Abortio spontanea—Spontaneous abortion.

15. Scorbutus—Scurvy.

16. Vibices—Extravasations of blood.

17. Petechiæ—Purple spots.

G. 2. *With decreased actions of the secerning system.*

Sp. 1. Frigus febrile—Coldness in fevers.

—— chronicum—Permanent coldness.

2. Palor fugitivus—Fugitive paleness.

P. permanens—Permanent paleness.

3. Pus parcius—Diminished pus.

4. Mucus parcius—Diminished mucus.

Cl. I. Or. 2. G. 2. continued.

Sp. 5. *Urina parciore palida*—Pale diminished urine.

6. *Torpor hepaticus*—Torpor of the liver.

7. *Torpor pancreatis*—Torpor of the pancreas.

8. *Torpor renis*—Torpor of the kidney.

9. *Punctæ mucosæ vultus*—Mucous spots on the face.

10. *Maculæ cutis flavæ*—Tawny spots on the skin.

11. *Canities*—Gray hairs.

12. *Callus*—Callus.

13. *Cataracta*—Cataract.

14. *Innutritio ossium*—Innutrition of the bones.

15. *Rachitis*—Rickets.

16. *Spinæ distortio*—Distortion of the spine.

17. *Claudicatio coxaria*—Lameness of the hip.

18. *Spina protuberans*—Protuberant spine.

19. *Spina bifida*—Divided spine.

20. *Defectus palati*—Defect of the palate.

Cl. I.

Cl. I. Or. 2. continued.

G. 3. *With decreased actions of the absorbent system.*

Sp. 1. Mucus faucium frigidus—Cold mucus of the throat.

2. Sudor frigidus—Cold sweat.

3. Catarrhus frigidus—Cold catarrh.

4. Expectoratio frigida—Cold expectoration.

5. Urina uberius pallida—Copious pale urine.

6. Diarrhœa frigida—Cold diarrhœa.

7. Fluor albus frigidus—Cold fluor albus.

8. Gonorrhœa frigida—Cold gonorrhœa.

9. Hepatis tumor—Swelling of the liver.

10. Chlorosis—Green sickness.

11. Hydrocele—Dropsey of the vagina testis.

12. Hydrocephalus internus—Dropsey of the brain.

13. Ascites—Dropsey of the belly.

14. Hydrothorax—Dropsey of the chest.

15. Hydrops ovarii—Dropsey of the ovary.

16. Anasarca pulmonum—Dropsey of the lungs.

17. Obesitas—Corpulency.

Cl. I.

Cl. I. Or. 2. G. 3. continued.

Sp. 18. Splenis tumor--Swelling of the spleen.

19. Genu tumor albus—White swelling of the knee.

20. Bronchocele—Swelled throat.

21. Scrophula—King's evil.

22. Schirrus—Schirrus.

23. Schirrus recti—Schirrus of the rectum.

24. Schirrus urethræ—Schirrus of the urethra.

25. Schirrus œsophagi—Schirrus of the throat.

26. Lacteorum inirritabilitas—Inirritability of the lacteals.

27. Lymphaticorum inirritabilitas—Inirritability of the lymphatics.

G. 4. *With decreased actions of other cavities and membranes.*

Sp. 1. Sitis calida—Warm thirst.

Sitis frigida—Cold thirst.

2. Efuries—Hunger.

3. Nausea sicca—Dry nausea.

4. Ægritudo ventriculi—Sickness of the stomach.

5. Cardialgia—Heart-burn.

Cl. I.

Cl. I. Or. 2. G. 4. continued.

Sp. 6. Arthritis ventriculi—Gout of the stomach.

7. Colica flatulenta—Flatulent colic.

8. Colica saturnina—Colic from lead.

9. Tympanitis—Tympany.

10. Hypochondriasis—Hypochondriacism.

11. Cephalæa frigida—Cold head-ach.

12. Odontalgia—Tooth-ach.

13. Otalgia—Ear-ach.

14. Pleurodyne chronica—Chronical pain of the side.

15. Sciatica frigida—Cold sciatica.

16. Lumbago frigida—Cold lumbago.

17. Hyfteralgia frigida—Cold pain of the uterus.

18. Proctalgia frigida—Cold pain of the rectum.

19. Vesicæ felleæ inirritabilitas, et icterus
— Inirritability of the gall-bladder,
and jaundice.

G. 5. *With decreased actions of the organs of sense.*

Sp. 1. Stultitia inirritabilis—Folly from inirritability.

2. Visus imminutus—Impaired vision.

Cl. I.

Cl. I. Or. 2. G. 5. continued.

- Sp. 3. *Muscæ volitantes*.—Dark moving specks.
4. *Strabismus*.—Squinting.
 5. *Amaurosis*.—Palsy of the optic nerve.
 6. *Auditus imminutus*.—Impaired hearing.
 7. *Olfactus imminutus*.—Impaired smell.
 8. *Gustus imminutus*.—Impaired taste.
 9. *Tactus imminutus*.—Impaired touch.
 10. *Stupor*.—Stupor.

OR. 3. RETROGRADE IRRITATIVE MOTIONS.

G. 1. *Of the alimentary canal.*

- Sp. 1. *Ruminatio*.—Chewing the cud.
2. *Ructus*.—Eruetation.
 3. *Apepsia*.—Indigestion, water-qualm.
 4. *Vomitus*.—Vomiting.
 5. *Cholera*.—Cholera.
 6. *Ileus*.—Iliac passion.
 7. *Globus hystericus*.—Hysteric strangu-
lation.
 8. *Vomendi conamen inane*.—Vain ef-
forts to vomit.
 9. *Borborismus*.—Gurgling of the bowels.

Cl. 1.

Cl. I. Gr. 3. G. 1. continued.

Sp. 10. Hysteria—Hysterical disease.

11. Hydrophobia—Dread of water.

G. 2. *Of the absorbent system.*

Sp. 1. Catarrhus lymphaticus—Lymphatic catarrh.

2. Salivatio lymphatica—Lymphatic salivation.

3. Nausea humida—Moist nausea.

4. Diarrhœa lymphatica—Lymphatic flux.

5. Diarrhœa chyli—Flux of the chyle.

6. Diabætes—Diabetes.

7. Sudor lymphaticus—Lymphatic sweat.

8. Sudor asthmaticus—Asthmatic sweat.

9. Translatio puris—Translation of matter.

10. Translatio lactis—Translation of milk.

11. Translatio urinæ—Translation of urine.

G. 3. *Of the sanguiferous system.*

Sp. 1. Capillarium motus retrogressus—Retrograde motion of the capillaries.

2. Palpitatio cordis—Palpitation of the heart.

Cl. I. Or. 2. G. 3. continued.

Sp. 3. Anhelatio spasmodica—Spasmodic panting.

CL. II. DISEASES OF SENSATION.

OR. I. INCREASED SENSATION.

G. 1. *With increased action of muscles.*

Sp. 1. Deglutitio—Deglutition.

2. Respiratio—Respiration.

3. Sternutatio—Sneezing.

4. Anhelitus—Panting.

5. Tussis ebriorum—Cough of inebriates.

6. Singultus—Hiccough.

7. Asthma humorale—Humoral asthma.

8. Nictitatio sensitiva—Winking from pain.

9. Oscitatio et pandiculatio—Yawning and stretching.

10. Tenesmus—Tenesmus.

11. Stranguria—Strangury.

12. Parturitio—Parturition.

Cl. II.

Cl. II. Or. 1. continued.

G. 2. *With the production of new vessels by internal membranes or glands, with fever.*

Sp. 1. Febris sensitiva irritata—Sensitive irritated fever.

2. Ophthalmia interna—Inflammation of the eye.

3. Phrenitis—Inflammation of the brain.

4. Peripneumonia—Inflammation of the lungs.

Peripneumonia trachealis—Inflammation of the croup.

5. Pleuritis—Inflammation of the pleura.

6. Diaphragmitis—Inflammation of the diaphragm.

7. Carditis—Inflammation of the heart.

8. Peritonitis—Inflammation of the peritoneum.

9. Mesenteritis—Inflammation of the mesentery.

10. Gastritis—Inflammation of the stomach.

11. Enteritis—Inflammation of the bowels.

12. Hepatitis—Inflammation of the liver.

13. Splenitis—Inflammation of the spleen.

Cl. II.

Cl. II. Or. 1. G. 2. continued.

Sp. 14. Nephritis—Inflammation of the kidney.

15. Cystitis—Inflammation of the bladder.

16. Hysteritis—Inflammation of the womb.

17. Lumbago sensitiva—Inflammation of the loins.

18. Ischias—Inflammation of the pelvis.

19. Paronychia interna—Inflammation beneath the nails.

G. 3. *With the production of new vessels by external membranes or glands, with fever.*

Sp. 1. Febris sensitiva inirritata—Sensitive inirritated fever.

2. Erysipelas irritatum—Irritated erysipelas.

Erysipelas inirritatum—Inirritated erysipelas.

Erysipelas sensitivum—Sensitive erysipelas.

3. Tonsillitis interna—Internal angina.

Tonsillitis superficialis—Superficial angina.

Tonsillitis inirritata—Inirritated angina

Cl. II.

Cl. II. Or. 1. G. 3. continued.

Sp. 4. Parotitis suppurans-----Suppurative mumps.

Parotitis mutabilis—Mutable mumps.

Parotitis felina—Mumps of cats.

5. Catarrhus sensitivus—Inflammatory catarrh.

6. Catarrhus contagiosus—Contagious catarrh.

Catarrhus equinus et caninus—Catarrh among horses and dogs.

7. Peripneumonia superficialis—Superficial peripneumony.

8. Pertussis—Chincough.

9. Variola discreta—Distinct small-pox.

Variola confluens—Confluent small-pox.

Variola innoculata—Inoculated small-pox.

10. Rubeola irritata—Irritated measles.

Rubeola inirritata--Inirritated measles.

11. Scarlatina mitis—Mild scarlet-fever.

Scarlatina maligna—Malignant scarlet-fever.

Cl. II. Or. 1. G. 3. continued.

Sp. 12. *Miliaria sudatoria*—Sudatory miliary fever.

Miliaria irritata—Irritated miliary.

Miliaria inirritata—Inirritated miliary fever.

13. *Pestis*—Plague.

Pestis vaccinia—Plague of horned cattle.

14. *Pamphigus*—Bladdery-fever.

15. *Varicella*—Chicken-pox.

16. *Urticaria*—Nettle-rash.

17. *Aphtha sensitiva*—Sensitive thrush.

Aphtha irritata—Irritated thrush.

Aphtha inirritata—Inirritated thrush.

18. *Dysenteria*—Bloody-flux.

19. *Gastritis superficialis*—Superficial inflammation of the stomach.

20. *Enteritis superficialis*—Superficial inflammation of the bowels.

Cl. II. Or. 1. continued.

G. 4. *With the production of new vessels by internal membranes or glands, without fever.*

Sp. 1. Ophthalmia superficialis—Superficial ophthalmmy.

Ophthalmia lymphatica—Lymphatic ophthalmmy.

Ophthalmia equina—Ophthalmmy of horses.

2. Pterigion—Eye-wing.

3. Tarfitis palpebrarum—Red eye-lids.

4. Hordeolum—Stye.

5. Paronychia superficilias—Whitlow.

6. Gutta rosea hepatica—Hepatic pimpled face.

Gutta rosea stomatica—Stomatic pimpled face.

Gutta rosea hereditaria—Hereditary pimpled face.

7. Odontitis—Inflamed tooth.

8 Otitis—Inflamed ear.

9. Fistula lachrymalis—Fistula lachrymalis.

10. Fistula in ano—Fistula in ano.

Cl. II. Or. I. G. 4. continued.

Sp. 11. Hepatitis chronica—Chronical hepatitis.

12. Scrophula suppurans—Suppurating scrophula.

13. Scorbutus suppurans—Suppurating scurvy.

14. Schirrus suppurans—Suppurating schirrus.

15. Carcinoma—Cancer.

16. Arthrocele—Swelling of the joints.

17. Arthropuosis—Suppuration of the joints.

18. Caries ossium—Caries of the bones.

G. 5. *With the production of new vessels by external membranes or glands, without fever.*

Sp. 1. Gonorrhœa venerea—Clap.

2. Syphilis—Venereal disease.

3. Lepra—Leprosy.

4. Elephantiasis—Elephantiasis.

5. Frambœsia—Frambœsia.

6. Pfora—Itch.

7. Pfora ebriorum—Itch of drunkards.

8. Herpes—Herpes.

9. Zona ignea—Shingles.

Cl. II.

Cl. II. Or. 1. G. 5. continued.

Sp. 10. Annulus repens—Ring-worm.

11. Tinea capitis—Scald-head.

12. Crustea lactea—Milk crust.

13. Trichoma—Plica Polonica.

G. 6. *With fever consequent to the production of new vessels or fluids.*

Sp. 1. Febris sensitiva—Sensitive fever.

2. F. a pure clauso—Fever from concealed matter.

3. F. a vomica—F. from vomica.

4. F. ab empyemate—F. from empyema.

5. F. mesenterica—Mesenteric fever.

6. F. a pure aërato—F. from aërated matter.

7. F. a phthisi—F. from consumption.

8. F. scrophulosa—Scrophulous fever.

9. F. ischiadica—F. from ischias.

10. F. arthropuodica—F. from joint-evil.

11. F. a pure contagioso—F. from contagious matter.

12. F. variolosa secundaria—F. secondary of small-pox.

13. F. carcinomatosa—Cancerous fever.

14. F. venerea—Venereal fever.

Cl. II. Or. I. G. 6. continued.

Sp. 15. F. a fanie contagiosa—F. from contagious fanies.

16. F. puerpera—Puerperal fever.

17. F. a sphacelo—F. from sphacelus.

G. 7. *With increased action of the organs of sense.*

Sp. 1. Delirium febrile—Delirium of fevers.

2. D. maniacale—Maniacal delirium.

3. D. ebrietatis—D. of drunkenness.

4. Somnium—Dreams.

5. Hallucinatio visus—Deception of sight.

6. H. auditus—Deception of hearing.

7. Rubor a colore—Blush from heat.

8. R. jucunditatis—Blush from joy.

9. Priapismus amatorius—Amorous priapism.

10. Distentio mamularum—Distension of nipples.

OR. 2. DECREASED SENSATION.

G. 1. *With decreased action of the general system.*

Sp. 1. Stultitia insensibilis—Folly from insensibility.

Cl. II.

Cl. II. Or. 2. G. 1. continued.

Sp. 2. Tædium vitæ—Irkfomenefs of life.

3. Pareſis ſenſitiva—Sen ſitive debility.

G. 2. *With decreased actions of particular organs.*

Sp. 1. Anorexia—Want of appetite.

2. Adipſia—Want of thirſt.

3. Impotentia—Impotence.

4. Sterilitas—Barrenneſs.

5. Inſenſibilitas artuum.—Inſenſibility of the limbs.

6. Dyſuria inſenſitiva—Inſenſibility of the bladder.

7. Accumulatio alvina—Accumulation of feces.

OR. 3. RETROGRADE SENSITIVE MOTIONS.

G. 1. *Of excretory ducts.*

Sp. 1. Motus retrogreſſus uretrum—Retrograde motion of the ureters.

2. M. r. urethræ—R. m. of the urethra.

3. M. r. ductus choledoci—R. m. of the bile duct.

CLASS III. DISEASES OF VOLITION.

OR. I. INCREASED VOLITION.

G. 1. *With increased action of the muscles.*

Sp. 1. Jaſtitatio—Reſtleſſneſs.

2. Tremor febrilis—Febrile trembling.

3. Clamor—Screaming.

4. Riſus—Laughter.

5. Convulſio—Convulſion.

Con. debilis—Weak convulſion.

6. Con. dolorifica—Painful convulſion.

7. Epilepfia—Epilepfy.

8. Ep. dolorifica.—Painful epilepfy.

9. Somnambulifmus—Sleep-walking.

10. Aſthma convulſivum.—Convulſive aſthma.

11. Aſt. dolorificum—Painful aſthma.

12. Stridor dentium—Gnaſhing of the teeth.

13. Tetanus triſmus—Cramp of the jaw.

14. Tet. dolorificus—Painful cramp.

15. Hydrophobia—Dread of water.

G. 2. *With increased actions of the organs of ſenſe.*

Sp. 1. Mania mutabilis—Mutable madneſs.

2. Studium inane—Reverie.

Cl. III.

Cl. III. Or. 1. G. 2. continued.

Sp. 3. Vigilia—Watchfulness.

4. Erotomania—Sentimental love.

5. Amor sui—Vanity.

6. Nostalgia—Desire of home.

7. Spes religiosa—Superstitious hope.

8. Subergia stemmatis—Pride of family.

9. Ambitio—Ambition.

10. Mæror—Grief.

11. Tædium vitæ—Irkfomeness of life.

12. Desiderium pulchretudinis—Loss of
beauty.

13. Paupertatis timor—Fear of poverty.

14. Lethi timor—Fear of death.

15. Orci timor—Fear of hell.

16. Satyriasis—Lust.

17. Ira—Anger.

18. Rabies—Rage.

19. Citta—Depraved appetite.

20. Cacofitia—Aversion to food.

21. Syphilis imaginaria—Imaginary pox.

22. Pfora imaginaria—Imaginary itch.

23. Tabes imaginaria—Imaginary tabes.

24. Sympathia aliena—Pity.

25. Educatio heroica—Heroic education.

Cl. III.

Cl. III. continued.

OR. 2. DECREASED VOLITION.

G. 1. *With decreased action of muscles.*

Sp. 1. Lassitudo—Fatigue.

2. Vacillatio senilis—See-saw of old age.
3. Tremor senilis—Tremor of old age.
4. Brachiorum paralyfis—Palsy of the arms.
5. Raucedo paralytica—Paralytic hoarseness.
6. Vesicæ urinariæ paralyfis—Palsy of the bladder.
7. Recti paralyfis—Palsy of the rectum.
8. Paresis voluntaria—Voluntary debility.
9. Catalepsis—Catalepsy.
10. Hemiplegia—Palsy of one side.
11. Paraplegia—Palsy of the lower limbs.
12. Somnus—Sleep.
13. Incubus—Night-mare.
14. Lethargus—Lethargy.
15. Syncope epileptica—Epileptic fainting.
16. Apoplexia—Apoplexy.
17. Mors a frigore—Death from cold.

Cl. III.

Cl. III. Or. 2. continued.

G. 2. *With decreased actions of the organs of sense.*

- Sp. 1. Recollectionis jactura—Loss of recollection.
 2. Stultitia voluntaria—Voluntary folly.
 3. Credulitas—Credulity.

CL. IV. DISEASES OF ASSOCIATION.

OR. I. INCREASED ASSOCIATE MOTIONS.

G. 1. *Catenated with irritative motions.*

- Sp. 1. Rubor vultus pranforum—Flushing of the face after dinner.
 2. Sudor stragulis immersorum—Sweat from covering the face in bed.
 3. Cessatio ægritudinis cute excitata—Cure of sickness by stimulating the skin.
 4. Digestio aucta frigore cutaneo—Digestion increased by coldness of the skin.
 5. Catarrhus a frigore cutaneo—Catarrh from cold skin.

Cl. IV.

Cl. IV. Or. 1. G. 1. continued.

Sp. 6. Absorptio cellularis aucta vomitu—
Cellular absorption increased by
vomiting.

7. Singultus nephriticus—Nephritic hic-
cough.

8. Febris irritativa—Irritative fever.

G. 2. *Catenated with sensitive motions.*

Sp. 1. Lachrymarum fluxus sympatheticus—
Sympathetic tears

2. Sternutatio a lumine—Sneezing from
light.

3. Dolor dentium a stridore—Tooth-edge
from grating sounds.

4. Ritus sardonius—Sardonic smile.

5. Saliva fluxus cibo viso—Flux of sa-
liva at sight of food.

6. Tensio mamularum viso puerulo—
Tension of the nipples of lactes-
cent women at the sight of a child.

7. Tensio penis in hydrophobia—Ten-
sion of the penis in hydrophobia.

8. Tenesmus calculosus—Tenesmus from
stone.

9. Polypus narium ex ascaride—Poly-
pus of the nose from ascarides.

Cl. IV.

Cl. IV. Or. I. G. 2. continued.

Sp. 10. Crampus furarum in Diarrhœa—
Cramp from diarrhœa.

11. Zona ignea nephritica.—Nephritic
shingles.

12. Eruptio variolarum—Eruption of the
small-pox.

13. Gutta rosea stomatica—Stomatic rosy
drop.

14. Gutta rosea hepatica—Hepatic rosy
drop.

15. Podagra—Gout.

16. Rheumatismus—Rheumatism.

17. Erysipelas—Erysipelas.

18. Testium tumor a gonorrhœa—Swell-
ed testis in gonorrhœa.

19. Testium tumor in parotide—Swelled
testis in mumps.

G. 3. *Catenated with voluntary motion.*

Sp. 1. Deglutitio invita—Involuntary deglu-
tition.

2. Niſtitatio invita—Invol. niſtitation.

3. Riſus invitus—Invol. laughter.

4. Luſus digitorum invitus—Involuntary
action with the fingers.

Cl. IV.

Cl. IV. Or. 1. G. 3. continued.

Sp. 5. Unguium morfiuncula invita—Involuntary biting of the nails.

6. Vigilia invita—Inv. watchfulness.

G. 4. *Catenated with external influences.*

Sp. 1. Vita ovi—Life of an egg.

2. Vita hiemi dormientium—Life of winter-sleepers.

3. Pullulatio arborum—Budding of trees.

4. Orgasmatis venerei periodi—Periods of venereal desire.

5. Brachii concussio electrica—Electric shock through the arm.

6. Oxygenatio sanguinis—Oxygenation of the blood.

7. Humectatio corporis—Humectation of the body.

OR. 2. DECREASED ASSOCIATE MOTIONS.

G. 1. *Catenated with irritative motions.*

Sp. 1. Cutis frigida pranforum—Chillness after dinner.

2. Palor urinæ pranforum—Pale urine after dinner.

3. Palor urinæ a frigore cutaneo—Pale urine from cold skin.

Cl. IV.

Cl. IV. Or. 1. G. 2. continued.

4. *Palor ex ægritudine*—Paleness from sickness.
5. *Dyspnœa a balneo frigida*—Shortness of breath from cold-bathing.
6. *Dyspepsia a pedibus frigidis*—Indigestion from cold feet.
7. *Tussis a pedibus frigidis*—Cough from cold feet.
8. *Tussis hepatica*—Liver cough.
9. *Tussis arthritica*—Gout-cough.
10. *Vertigo rotatoria*—Rotatory vertigo.
11. *V. Visualis*—Visual vertigo.
12. *V. ebriosa*—Inebriate vertigo.
13. *V. febriculosa*—Feverish vertigo.
14. *V. cerebrosa*—Vertigo from the brain.
15. *Murmur aurium vertiginosum*.—Noise in the ears.
16. *Tactus, gustus, olfactus, vertiginosi*—Vertiginous touch, taste, smell.
17. *Pulsus mollis a vomitione*—Soft pulse in vomiting.
18. *Pulsus intermittens a ventriculo*—Intermittent pulse from the stomach.
19. *Febris inirritativa*—Inirritative fever.

Cl. IV.

Cl. IV. Or. 2. continued.

G. 2. *Catenated with sensitive motions.*

Sp. 1. Torpor genæ a dolore dentis—Coldness of the cheek from tooth-ach.

2. Stranguria a dolore vesicæ—Strangury from pain of the bladder.

3 Stranguria convulsiva—Convulsive strangury.

4. Dolor termini ductus choledochi—Pain of the end of the bile-duct.

5. Dolor pharyngis ab acido gastrico—Pain of the throat from gastric acid.

6. Pruritus narium a vermibus—Itching of the nose from worms.

7. Cephalæa—Head-ach.

8. Hemicrania et otalgia—Partial head-ach and ear-ach.

9. Dolor humeri in hepatitide—Pain of the shoulder in hepatitis.

10. Torpor pedum variola erumpente—Cold feet in the eruption of small-pox.

11. Testium dolor nephriticus—Nephritic pain of the testis.

Cl. IV.

Cl. IV. Or. 2. G. 2. continued.

Sp. 12. Dolor digiti minimi sympatheticus—
Pain of the little finger from sympathy.

13. Dolor brachii in hydrope pectoris—
Pain of the arm in dropsy of the chest.

14. Diarrhœa a dentitione—Diarrhœa
from teething.

G. 3. *Catenated with voluntary motions.*

Sp. 1. Titubatio linguæ—Impediment of
speech.

2. Chorea Sancti Viti—St Vitus's dance.

3. Rîsus—Laughter.

4. Tremor ex ira—Trembling from anger.

5. Rubor ex ira—Redness from anger.

6. Rubor criminati—Blush of guilt.

7. Tarditas paralytica—Slowness from palsy.

8. Tarditas senilis—Slowness of age.

G. 4. *Catenated with external influences.*

Sp. 1. Somni periodus—Period of sleep.

2. Studii inanis p.—P. of reverie.

3. Hemicranis p.—P. of headach.

Cl. IV. Or. 2. G. 4. continued.

Sp. 4. *Epilepsiæ dolorificæ periodus*—Period of painful epilepsy.

5. *Convulsionis dolorificæ p.*—P. of painful convulsion.

6. *Tussis periodicæ p.*—P. of periodic cough.

7. *Catamenia p.*—P. of catamenia.

8. *Hæmorrhoidis p.*—P. of the piles.

9. *Podagræ p.*—P. of the gout.

10. *Erysipelatis p.*—P. of erysipelas.

11. *Febrium p.*—P. of fevers.

Or. 3. OF RETROGRADE ASSOCIATE
MOTIONS.

G. 1. *Catenated with irritative motions.*

Sp. 1. *Diabetes irritata*—Diabetes from irritation.

2. *Sudor frigidus in asthmate*—Cold sweat in asthma.

3. *Diabetes a timore*---Diabetes from fear.

4. *Palor et tremor a timore*—Paleness and trembling from fear.

Cl. IV.

Cl. IV. Or. 3. G. 1. continued.

Sp. 6. Palpitatio cordis a timore—Palpitation of the heart from fear.

7. Abortio a timore—Abortion from fear.

8. Hysteria a timore—Hysterics from fear.

G. 2. *Catenated with sensitive motions.*

Sp. 1. Nausea idealis—Nausea from ideas.

2. Nausea conceptu—Nausea from conception.

3. Vomitio vertiginosa—Vomiting from vertigo.

4. V. a calculo in uretere—V. from stone in the ureter.

5. V. ab insultu paralytico—V. from stroke of palsy.

6. V. a titillatione faucium—V. from tickling of the throat.

7. V. a cute sympathetica—V. from sympathy of the skin.

G. 3. *Catenated with voluntary motions.*

Sp. 1. Ruminatio—Rumination.

2. Vomitio voluntaria—Voluntary vomiting.

Cl. IV. Or. 3. G. 3. continued.

Sp. 3. Eruſtatio voluntaria—Voluntary eructation.

G. 4. *Catenated with external influences.*

Sp. 1. Catarrhus periodicus—Periodical catarrh.

2. Tuffis periodicus—Periodic cough.

3. Hyſteria a frigore—Hysterics from cold.

4. Nauſea pluvialis—Sickneſs againſt rain.

XIX.

Considerations on the Medicinal Use, and on the Production, of Factitious Airs. Part I. by T. Beddoes, M. D.—Part II. by James Watt, Engineer; Edition 2d.—Part III. by T. Beddoes, M. D. and James Watt, Engineer. 8vo. London, 1795.

THE two first parts of these considerations are so generally known, not only to medical men, but to the public at large, that it appears unnecessary to offer, in this work, any analysis of their contents.

Dr Beddoes's object, in the first part, is to recommend the trial of various chemical agents, chiefly gasses, for the cure of diseases. Mr Watt, in the second part, points out the manner of preparing the several gasses, describes the necessary apparatus, and mentions some indispensable cautions.

The third part contains ample proofs, that the arguments and facts, so ingeniously and candidly stated in the former publication,

Q 3

have,

have, notwithstanding the prejudices which oppose the introduction of all new methods of treating diseases, had the influence to extend greatly the pneumatic practice.

As we do not think that any practitioner ought to apply the powerful remedies, of which this work contains an account, without a careful examination of the original, we shall, instead of an analysis, present our readers with a short view of the cases in which the gasses have been employed; and shall notice a few of the many interesting particulars communicated by Dr Beddoes, or his correspondents. By these means we hope to contribute somewhat towards turning the attention of practitioners in general to the effects of aerial remedies.

Dr Beddoes has to the third part subjoined a table, exhibiting, at one view, the essential circumstances of the cases, in which, according to his knowledge, factitious airs have been employed. From this the following account is taken.

Amaurosis and impaired senses. Of six cases, in which the oxygene gas, in various states of dilution, was employed, in one, the
benefit

benefit was great, but not permanent ; considerable and permanent in two ; and in the remainder no advantage whatever accrued : In one of the latter, the hydro-carbonate gas was employed after the diluted oxygene, but with equal inefficacy.

Anasarca general and of the lungs. Ascites. In four cases, oxygene diluted, and in one in a pure state, was exhibited ; in three a cure was effected. It was in one of the two unsuccessful cases that the undiluted oxygene was used.

Asthma and dyspnœa. Considerable benefit was derived in one case from hydrogen gas, in the proportion of one third to atmospherical air, and in another from diluted hydro-carbonate. In five a permanent cure was accomplished, and in one great benefit was felt from diluted oxygene : In two, the same remedy, although the trial was imperfect, produced much ease : In one case, oxygene extremely diluted, when continued for six weeks, aggravated the complaints. Afterwards the oxygene was given in the forenoon, and diluted hydrogen in the evening ;

ing ; by which means a permanent cure was effected.

Chlorosis and sensibility increased, with irritability (or contractility) diminished. Oxygene diluted (in one instance pure) produced a cure in five, great benefit in two, and much relief in other two cases.

Dyspepsia. Diluted oxygene was fairly tried in three cases ; of which, two were cured, and one much relieved. In other two cases, where the trial was imperfect, there were evidently temporary good effects.

Epilepsy. In one case, the disease seemed aggravated by the diluted oxygene ; and in another it was not cured.

Hypochondriasis. Two cures were effected by the diluted oxygene ; and in one case there was great permanent benefit.

Palsy. Precisely the same results as in hypochondriasis were experienced from the use of the same remedy.

Phthical cachexy and phthisis. A perfect cure was produced, in one case, by pure hydrogen ; and, in another, by carbonic acid. The hydro-carbonate, diluted, cured in two cases ;

cases ; in four cases, where the trial was imperfect, it evidently gave relief ; and in one, it was inefficacious. In three cases, hydrogen diluted relieved, but it did not cure : In one case, it was employed equally unsuccessfully, after the use of hydro-carbonate.

Pneumonia, croup, and catarrh. Hydrogene pure in one instance, and in the others diluted, cured completely in three cases. The same benefit accrued from azote in one case, æther vapour in another, the internal use of yeast in a third, and hydro-carbonate diluted in a fourth. Hydrogene diluted failed in one instance, as did also azote and the carbonic acid diluted.

On these diseases, Dr Beddoes has the following interesting note. “ These are most serious disorders in our climate, and in which we may look for great benefit from airs. The pneumatic treatment may, I think, be regulated thus : In and near the first or dry stage, (when the absorbents seem to be most excited), hydrogen, or azote should be given. In the last or moist stage, which is very fatal to old people, and dangerous to all, where the absorbents

“ents have been debilitated by the preceding inflammation, or by any other previous cause, diluted oxygene should be cautiously given, perhaps with hydro-carbonate also. In the intermediate stages, give hydrogen, if you want to abate inflammation; but oxygene, if the function of respiration requires assistance, as in the last stage, with old and weak people, where medicines will do little or nothing.”

Typhus. Oxygene diluted produced instant relief, and a complete cure in one case: In another, yeast was given internally, and the progress of the cure was very rapid.

Ulcers, cancerous, foul, strumous. In two cases of cancerous mammæ, ease was soon experienced from the external application of carbonic acid gas. In three cases of foul ulcers of the leg, the inhalation of oxygene, moderately diluted, effected a complete cure. In one case of strumous ulcer, great benefit arose from the use of oxygene, and hydro-carbonate with oxygene. A case of tumors and ulcer was cured by oxygene, little diluted:

diluted : The same remedy removed a white swelling of the knee. Many patients had scrophulous sores cured by sorrel poultices ; and in many, foul ulcers and mortifications yielded to the charcoal-poultice, as did cutaneous eruptions to the external use of yeast. One patient, with a humour in the face of two years standing, was cured, but not permanently, (probably from the trial being imperfect), by means of diluted oxygen. The charcoal-poultice in one instance cured carbuncular tumors, and in another removed an obstinate affection of the nose, of two years standing, which had resisted all the most ordinary means adopted in cases where external parts have a carcinomatous appearance.

From the above summary it will be perceived, that of the several chemical agents recommended or suggested in the first part of Dr Beddoes's considerations, the gasses alone have hitherto been chiefly tried.

In the volume of Medical Commentaries for 1795, p. 368. we stated the advantages which Dr Garnet had observed in cases of florid consumption, from the use of the kali sulphuratum

fulphuratum and the powder of charcoal. Mr Paterfon has lately recommended, from extensive experience, a solution of nitre in vinegar, in cafes of sea-scurvy: And Dr Johnstone of Birmingham has experienced considerable benefit from the internal use of charcoal-powder. May we not therefore infer, that the bases of the most active gasses may operate upon the system through the medium of the stomach?

Were this found practicable, we should probably be possessed of many powerful remedies for disorders at present deemed incurable, remedies within the reach of practitioners in general, and of patients of all denominations. Such means would not supersede the practice of applying gasses immediately to the lungs; for that might be had recourse to in cases too urgent to be benefited by the comparatively slow effects of medicines received into the stomach; and, besides, were it clearly and unequivocally ascertained, that medicines taken internally produce effects as chemical agents, the prejudices against the pneumatic practice would soon be dissipated.

We

We now proceed to notice some interesting particulars continued in the third part of the considerations.

The following observations are made by Dr Thornton on the case of Sir William Chambers; a very distinct account of which is communicated by Sir William himself. Sir William's complaints were anasarca, with symptoms of hydrothorax, and the remedies employed were bitters, aperients occasionally, and the daily inhalation of diluted oxygene gas.

“ 1. As the average dose was 1500 cubic inches of atmospheric air, superoxygenated at first by one, and afterwards by two quarts of vital air, does not this case of anasarca prove, that such a mixture has no contemptible power?

“ 2. As the superoxygenated air was inhaled at first for near two months successively, once each day, and afterwards, for eight months, three or four times a-week, it seems to prove, that this remedy may be employed for a great length of time without injury, care being taken to leave it off when any accidental inflammatory attack supervenes,
and

and when the tongue has a white appearance, in the same way as bark, and all other tonic and exciting remedies, would be omitted under similar indications.

“ 3. After the inhalation of the superoxygenated air, (the quantity of air usually drawn into the lungs being four pints at a forced inspiration), a sense of warmth was diffused throughout the body. Sir William Chambers frequently noticed, that the extremities of his fingers, which were before colourless, were suffused with red blood, the small vessels on the surface of the cheeks became more florid, the veins filled out, and the pulse, which was ninety, and weak, rose in fulness, but diminished in number from six to ten in a minute.

“ 4. Is the removal of the anasarca, the recovery of muscular power, the increase of strength, to be ascribed solely to the inhalation of a superoxygenated air—to the power of tonic remedies—or to both conjointly ?”

To the last opinion Dr Thornton gives his assent, from an experience of above two years in the pneumatic practice.

“ 5. Was

“ 5. Was not a deficiency of vital air in the system shewn, not only from the nature of this disease, from incapacity for muscular motion, coldness of the extremities, defect of the colour which is natural to the cheeks in the state of health ; but also from the tremulous motion of the hand, when holding the tube connected with the machine for the inhalation of the air ; for these went off in proportion as the system became oxygenated.

“ 6. As the usual remedies are employed which the prudent physician prescribes, according to the circumstances of the case, and as the patient loses no chance in the experiment, and the superoxygenated air in a state of great dilution is proved to be by no means a dangerous remedy ; have not practitioners great reason for adopting in future this new power under similar circumstances ?”

To these Dr Beddoes has subjoined the following remarks.

“ 7. As patients in general, though warned to the contrary, make greater efforts of respiration, when they draw the air out of a reservoir, does not the same quantity of atmospheric

atmospheric air oxygenate the system more in this mode of administering it, than in ordinary breathing? And may not the exercise attending this mode of respiration be of service? This last circumstance deserves attention."

Dr Garnet had suggested, that "mercury derives most of its activity from its being in the state of an oxyd." Does the following account of Dr Thornton afford any support to this opinion?

"The practitioner now and then meets with peculiar habits in which mercury seems to have no action, and again with other cases in which mercury is immediately carried off by ptyalism, violent sweats, or excessive diarrhoea. In both these states I was desirous to see the vital air tried, but as yet have been able to observe its salutary effects only in the latter instance.

A wealthy merchant of the city of London, after inebriation, became the victim of indiscreet indulgence. Mercury was had recourse to in the form of pills, and unguent; but these produced the greatest derangement in his health, and affected almost instantly the

the salivary glands. The primary symptoms being however subdued, his surgeon, an able and experienced practitioner, thought fit to leave off the mercury, seeing it was so inimical to his constitution : and for some time the patient believed himself safe ; but this Proteous disease broke out in another form, and that unfortunately at the time when he had just married. He was salivated again ; but could not retain, according to Bell, sufficient mercury to establish a cure ; or rather, the mercurial action was at first too violent and local to be kept up a sufficient time to produce a permanent benefit : hence this cruel disorder afflicted him for more than the space of two years. When I saw him, the surface of his body was deformed by dreadful blotches : he had an ulcer on the lungs, attended by hard cough, and bloody purulent expectoration ; with other horrid marks of this dreadful scourge of illicit desires. Mess. Walker and Phipps, seeing this gentleman in so deplorable a state, and having witnessed the relief arising from the aerial practice in the case of a servant-maid, whom, though not a servant of

the family, they humanely lodged in their house, and who was in the last stage of a pulmonary consumption, advised him by all means to consult both me and Mr Hill.

“ From my former residence at the Hotwells near Bristol, and from frequent conversation with the late Dr Rigg, physician at that place, I was convinced of the fatality of consumption from venereal ulcers; and though the case was not the one I had chalked out in my mind for the first trial of the vital air, yet, as perhaps it afforded the only chance of recovery, I urged its use. Mr Hill accordingly gave him each day the superoxygenated air, in the proportion of two quarts to a thousand cubic inches of atmospheric; and, by way of medicine, he had muriated mercury in the strongest decoction of bark, and two grains of opium at night: He was occasionally purged. By this course, without any violent effect from the mercury, he was in three weeks clear from all defædations of the skin; in a month, the ulcer on the lungs was healed, and the other marks of venereal affection disappeared; and
in

in six weeks he went to Margate, deeming himself cured.

“A question here naturally arises, Whether the cure in this case proceeded from a different administration of mercury, or from the combined operation of superoxygenated air? These doubts must often occur to a private practitioner, before the acquisition of more facts.”

On the operation of yeast as an internal remedy, Dr Pearson of Birmingham offers the following remarks.

“So much has lately been said in favour of yeast as a remedy in typhus and other disorders, that I have been induced to take some notice of it. Those who have written about it do not seem to have understood its nature thoroughly. They have looked only to the carbonic acid which it contains, without being aware of another active ingredient in its composition, I mean the bitter principle of the hop, which is present in a very concentrated state in yeast, and is highly narcotic. It is to this principle that I ascribe the violent effects which I have known yeast to produce when given internally. I have been

witness to its operation in two cases : neither of them were fevers. In the first, the vomiting, which had come on before, was increased by it ; and, in the other instance, it purged violently. In respect to its utility internally, I cannot help looking upon it as a very doubtful remedy ; but I can bear testimony to its good effects externally in cutaneous affections. It should be observed, that there is a great difference between old and new yeast. By keeping, much of the carbonic acid air escapes, the mass becomes less frothy, and its parts are brought into closer contact : hence old yeast is bulk for bulk, much stronger than new. I suspect, too, that in proportion as it loses its carbonic acid air, it becomes more powerfully narcotic. It is therefore a necessary precaution to proportion the dose according to the quality of the yeast. The old is at least twice as strong as the new."

Dr Thornton has made some observations on these opinions, which we deem it proper to insert.

" As the public," he says, " are so easily prejudiced against new remedies, and with
ever

ever to be cured by inert substances acting like charms, it may be necessary to comment on the evils that are said to arise from yeast, as mentioned by this judicious physician. To ascertain the action of remedies, is of the first consequence: to discover this mode of action, is the next, which paves the way for future improvement, and distinguishes the physician from the empiric. In no instance has vomiting occurred with me from the exhibition of yeast, the stomach and bowels being first cleansed, but such effects as resemble hysteria, and the continued eructations of air seem, in my mind, to indicate the *modus operandi*. It was curious to observe, that when my patients plunged their arms into yeast in a state of fermentation, it produced eructation. I happened lately to get a dreadful scald, and the pain was excessive. I tried the yeast poultice, and obtained an almost instant cure. Do not the effects of the fixed air, and of the carrot and yeast poultices, in cancer, clearly shew, that they act by one and the same principle? The same may be observed of mortification. Knowing the effects of wind

on the stomach, can we doubt of this being the prime agent? Not that I mean to deny the bitter principle of the hop, any more than the neutral basis of the effervescing mixture; but I would place it in the secondary station. The question was, I think, cleared up by the Geneva, which soon banished the wind, and gave relief. It may at once be decided by this able chemist, if he will first extricate the air from the yeast, and then exhibit it in cases which may demand its bitter and narcotic qualities."

It has lately become the opinion of several respectable practitioners, that the effects of inoculation for the small-pox are influenced by the quantity of the matter introduced by the puncture. Speculating upon this idea, Dr Thornton mentions, that in three instances he inoculated with matter greatly diluted: And in order that as little as possible might be carried by the absorbents into the system, he gently raised with a lancet the skin on the deltoid muscle of the left arm; and when all inflammation was subsided, he inserted under the small scratch, the dilute variolous matter
with

with the point of a needle. In all, the local inflammation took place, but no eruption, nor any general indisposition: and as the patients have been repeatedly exposed with impunity to infection, the Doctor imagines that they are perfectly secure. He hopes, that an attention to these principles may remove the only objection to general inoculation, by rendering the disease universally mild. Dr Thornton adds, that he mentions this only as a supposition, to be refuted, or confirmed, by future experience.

With the following remarks of Dr Beddoes we conclude our account of this interesting publication.

“ The reader may expect from me some general reflections on the effects of airs: But many hundred more observations must be collected and compared, before a theory can be established. The immediate operation of oxygene is doubtless to render the action of the heart and arteries stronger. Among its remote effects, may be reckoned an increase of the red colour of the blood, where this is pale, and heightening of the complexion. The conjecture, that it ex-

hausts less than other equal stimulants is still undetermined: its other remote effects require further inquiry.

“ Hydro-carbonate air weakens the action of the arterial system, while it is respired: but so would the mere abstraction of oxygen. Does the venous blood, changed as it is by hydrocarbonate, stimulate the veins more than the dark blood they usually carry? Does this air stimulate the absorbents? In consumption it has been observed, (and I have several times noticed the fact in the last stage of consumption), that the expectoration is diminished when hydro-carbonate is administered. Perhaps other phenomena might be brought to support this supposition; but I shall not dwell upon it at present. It may not be quite so easy to determine when the veins are stimulated. Dr Darwin mentions paleness as sometimes a sign of this. Less sponginess of the gums may, I suppose, also be regarded as the sign of a tonic effect upon the veins; that is, of their action having become permanently stronger.

“ I know not if any anatomist has yet thought of employing the rubefacient effects of oxygene or hydro-carbonate air, for ascertaining the doubtful structure of certain parts. The latter appears very capable of such application, as the blood tinged by this air passes beyond the reach of the most penetrating injection.

XX.

Select Cases in Midwifery ; extracted from the Records of the Edinburgh General Lying-in Hospital, with Remarks. By James Hamilton junior, M. D. Fellow of the Royal College of Physicians of Edinburgh. 8vo.

SOME of the cases in this Collection, Dr Hamilton observes, are of such a nature that they may not occur oftener than once or twice in the course of a very extensive practice: yet they may happen at the outset of an individual as readily as afterwards. In either situation, the practitioner must feel great comfort from having it in his power to consult authentic records, in which the particulars of similar occurrences are detailed, and in which the proper mode of practice is pointed out. He thus enjoys every advantage of a consultation with an experienced brother of the profession, and must
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be inspired with a proportional degree of confidence.

These cases relate to laborious, preternatural, and complex labours.

Following the arrangement of Dr Osborne, the author divides laborious labours into three orders.

Of the first order, or cases where the head of the child presenting, the labour is protracted beyond the period of twenty-four hours, but is finally terminated without any extraordinary assistance, there are four instances related.

A curious circumstance occurred in the second of these. Spurious pains took place for a considerable time before real labour, attended with the protrusion, even as low as the external parts, of a bag, resembling that formed by the layers of the ovum, and the liquor amnii. This proved to be the urinary bladder, which Dr H. and his father had some years before discovered to be apt to descend during the incipient stages of labour in women of a relaxed habit. Ignorance of this fact, they imagine, has frequently proved the cause of irreparable injury to the bladder,

der, from the ordinary practice of rupturing the membranes, when forced down to the lower part of the vagina.

This bag, however, thus formed, may, Dr Hamilton remarks, be very readily distinguished from that of the ovum; for it is strongly connected with the fore-part of the pelvis, so that the finger cannot be passed round its circumference; and, during the interval of a pain, the os tinæ can be felt situated very high, and quite undilated.

In his remarks on the third case, the author points out the circumstances that render the employment of the long forceps eligible, or even warrantable. These are two, viz. first, The necessity of speedy delivery while there are no pains, while the head is beyond the reach of the short forceps, and the apertures of the pelvis are under the usual dimensions; and, secondly, The necessity of immediate delivery, (as in cases of uterine hæmorrhage, &c.), while the head is in the same situation, but where the apertures of the pelvis are natural, and the soft parts are relaxed. By this practice, under the former
of

of those circumstances, he alledges, it is sometimes in the power of the practitioner to accomplish the delivery by means perfectly consistent with the safety of the child; and consequently the long forceps should in general be tried before recourse be had to the operation of embryulcia, unless the deficiency of space in the pelvis be very considerable.

Under the second order of laborious labour, or that requiring instrumental delivery, but without injury to the child, there is only one case detailed. The short forceps were used.

Of the third order, comprehending those distressing cases where it is necessary to lessen, by destructive instruments, the head of the child, four instances are enumerated.

In the first case, the head having been situated very low, the short forceps were tried before the last resource was had recourse to. From this Dr Hamilton takes occasion to explain the mode of action of the forceps. As that instrument, he observes, cannot be employed without being made to act upon the parts of the woman,
it

it is obvious, that there must be great danger where the head of the child is in close contact with the sides of the passage in which it is contained. A doctrine of an opposite nature, he allows, has prevailed much among practitioners ; for it has been generally believed, that the forceps act upon no part of the woman, the whole power in moving the instrument being exerted upon the locking parts of it. He presumes, however, that two arguments overturn this opinion. First, That the locks are moved as well as the handles, whereas, did they serve as the fulcrum to the instrument, they ought to be fixed points ; and, secondly, That the blades are moved from side to side, and consequently their most converging points must rest alternately upon the sides of the pelvis.

In the third case, there was very considerable deformity of the pelvis ; yet the patient was allowed to be at least sixty hours in labour before the operation of embryulcia was undertaken ; and that was not performed until it had been ascertained, that Lowder's lever

lever could not produce a sufficiently powerful effect. The patient's recovery was rapid.

In such cases, the author remarks, two modes of practice have been recommended, viz. either to open the head at the beginning of labour, or to wait patiently till it be proved, that the efforts of nature are inadequate to the expulsion of the child. In favour of the former, many plausible arguments may be adduced. Thus it may be alledged, that while it is improbable that the short diameter of the child's head shall be reduced below three inches, it is cruel to allow the patient to suffer unavailing anguish for several days, or unjustifiably to hazard her life, while there was no reasonable prospect of saving the child. And besides, it must be distressing to the practitioner to undergo the fatigue and anxiety of a long attendance, which may with so much ease be avoided. Whereas, on the other hand, by opening the child's head at the very beginning of labour, the patient's safety is secured, and the practitioner's fatigue avoided.

But Dr Hamilton insists the second mode
of

of practice ought always to be adopted ; that is, the practitioner should constantly, wherever the pelvis falls under the ordinary standard, provided its dimensions be not below two inches in its short diameter, wait patiently till he be absolutely convinced, that the child cannot be excluded alive by the efforts either of nature or of art. His arguments in favour of this opinion are, that children at the full time have been born alive, though the short diameter of the pelvis was not equal to three inches ; and that infants at the seventh month, being smaller, may be forced without injury through apertures which do not permit the safe passage of the mature foetus.

Two important advantages, he continues, result from this mode of practice. First, The certainty of never destroying life unnecessarily ; and, secondly, The probability that if the child must unavoidably be extracted piece-meal, its death shall have happened previous to the use of destructive instruments, in consequence of the long-continued pressure.

In the last case of this order, after the
operation

operation of embryulcia had been accomplished with considerable difficulty, the safety of the patient was further endangered by the obstacles that occurred to the extraction of the secundines. These arose from the induration and ossification of the cake. The induration of the placenta, it is observed, is always productive of considerable danger to the mother, though it seems to have little effect upon the child, as the children born in such cases are generally stout and well formed. The danger arises from two sources, viz. hæmorrhagy, and retention of the placental mass. As there must be an unusual resistance to the contraction of the uterine fibres at that part to which the indurated portions are attached, increased action is excited in them; and hence the soft yielding portions are separated sooner than usual. thus the hæmorrhagy is produced. On the other hand, the cellular as well as the vascular part being indurated, the adhesion of the diseased parts to the uterus must be in many cases so great, that neither the natural action,

nor even the assistance of art, can accomplish the separation.

Two of the consequences of retention of the secundines, are, an alarming uterine hæmorrhagy, and an absorption of putrid matter, which is equally dangerous, though less rapid in its effects ; the life of the patient being sometimes protracted to the third week, but more frequently to the eighth or ninth day only. Dr Hamilton next directs the method of extracting the secundines, when thus morbidly adhering.

The second class, or preternatural labours, is divided into two orders. The former of these comprehends two instances of footling presentation. Under the latter, the histories of three cases of arm-presentation are detailed. In the last of these cases, the patient had been five days and nights in labour before the Doctor was called. He found the fœtus so placed, that the right-arm lay in the direction of the right sacro-iliac synchondrosis ; the occiput occupied the right ossa-iliaca : and the right cheek-bone was jammed within the brim of the pelvis, exactly

exactly at the junction of the right ilium with the pubis; and in this situation it had, by the reiterated contractions of the uterus, and probably also by the swelling of the contiguous parts, become so strongly wedged, that no force could either alter it, or produce room for the passage of the hand beyond those presenting parts. The patient seemed in articulo mortis. With great difficulty the child was extracted, but the woman survived delivery only about four hours.

This case, it is remarked, affords a proof, that the operation of turning, in such cases, ought never to be delayed longer than what is absolutely necessary to remove the contraction of the uterus by the proper means, and that the spontaneous evolution, first noticed by Dr Denman, can never be implicitly depended upon. As that curious effort of nature can only take place where the child lies in a particular situation, viz. where the action of the uterus cannot be exerted on the presenting part, or where that part is so shaped that it cannot be wedged within the pel-

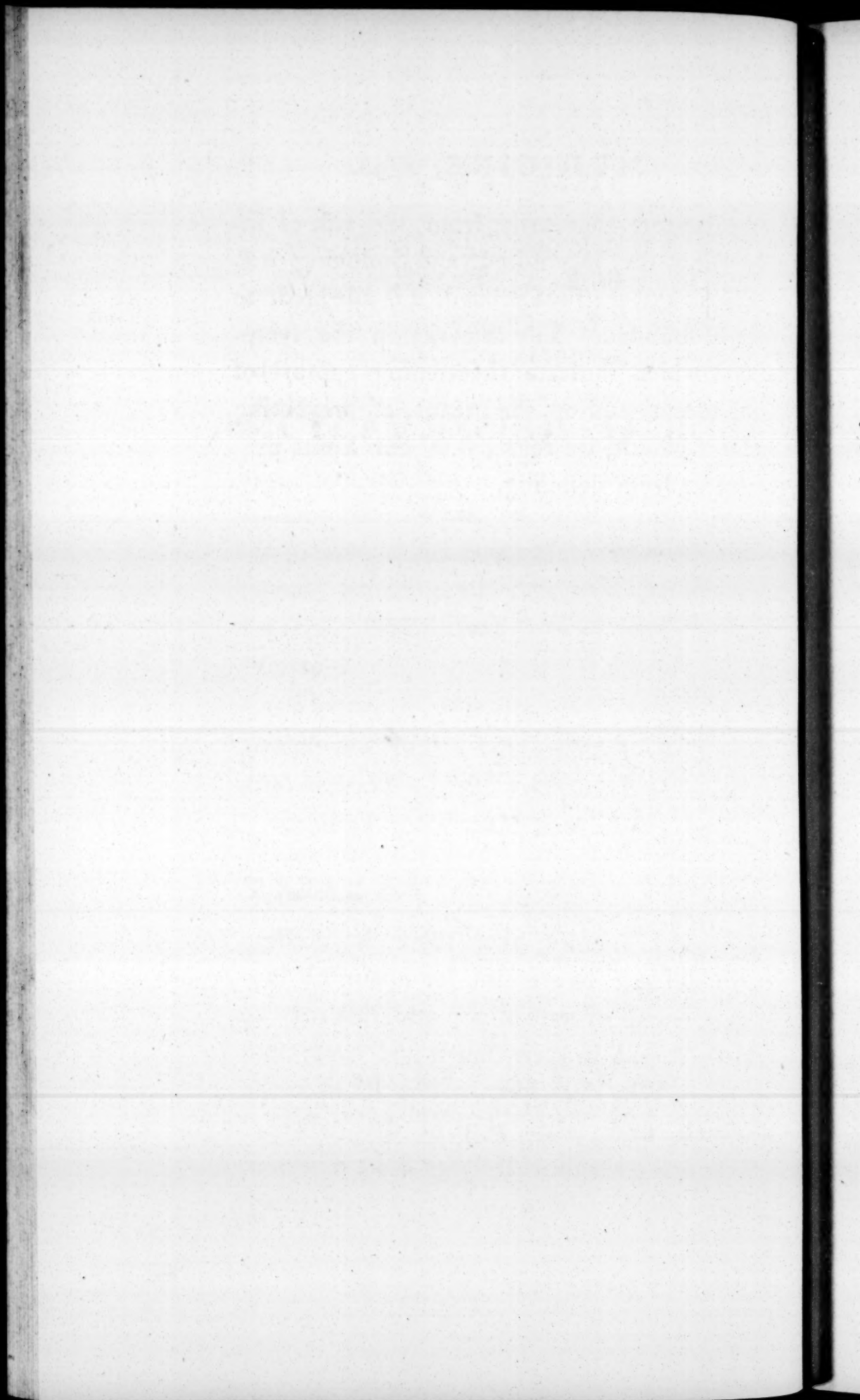
vis, the author imagines, that it is in the power of the practitioner, both to ascertain when there is a probability of its happening, and to contribute towards its accomplishment.

In the last class, complex labours, there are included three cases of twins, and one of ruptured uterus.

In one of the twin-cases, phrenitis supervened on the sixth day, and terminated in mania. The patient died at the end of the fortnight.

The case of ruptured uterus affords a remarkable example of the advantages resulting from delivery after the accident has happened. The whole body of the infant had been for seven hours in the cavity of the abdomen, and the woman seemed sinking very rapidly. During the process of extracting the child, the rent in the uterus was evidently increased, and such hæmorrhagy ensued, that above three pounds of blood were lost: yet the patient recovered. The objections, therefore, that have been urged against delivery in similar cases, viz.
the

the dangers that arise from the risk of increasing the laceration, and inducing hæmorrhagy, are thus proved, it is alledged, to be ill founded. The remarks on the symptoms which indicate threatening rupture of the uterus, and on the means of preventing that accident, we regret that our limits prevent us from detailing.



S E C T. II.

MEDICAL OBSERVATIONS.

I.

Some Cases of Biliary Obstructions from Calculi, cured by Salivation. By Dr Thomas Gibbons, Physician at Hadleigh in Suffolk.

IT has been acknowledged by the Medical Faculty, that there is nothing more difficult to account for than the *modus operandi* of remedies; and this may be observed both in their simple and compound forms. Why does *ipecacuanha* act upon the stomach, and *jalap* run to the bowels? What is the reason that large doses of crude

mercury may be taken with impunity? and why so small a quantity, when joined with marine acid, proves so deleterious? On the other hand, why is the vitriolic acid so pernicious by itself, and why so mild when united to alkaline salt, or joined with inflammable matter? More questions concerning stimulants in the first passages might be asked; but let these suffice. When medicines have entered the system, whether by the lacteals or lymphatics, we are equally at a loss to account for their action there. Why does calomel or mercurial ointment affect the salivary in preference to any other glands? Why does ferrum vitriolatum stimulate the uterus, and kali acetatum the kidneys? The answering of these questions I shall leave to those gentlemen who may think themselves more equal to it than I find myself.

Anatomy is now so well known to every medical man of any reputation, that I think a description of the biliary organs needless; but, should it so happen that a reader has not had an opportunity of attending to such subjects, the reading of my worthy friend

Dr

Dr Thomas Coe's Treatise on Biliary Concretions, may be of use to him.

I have no nostrum to vend, nor do I publish the following cases to make myself known, for on account of ill health I have declined practice. My only motive is, that I think they will be of use to mankind. Calomel has in biliary obstructions only been given as a deobstruent; but I do not recollect, that intended salivation for the removal of biliary calculi has ever been recommended. I know that in the East Indies it is a common practice, for inflammations of the liver, after bleeding, to salivate as quickly as possible. But this is foreign to my purpose: I shall therefore proceed to a relation of such cases as I treated successfully.

CASE I.

MRS WARD, a widow-lady of this town, aged about seventy years, of a corpulent habit, sent for me in May 1776. Her skin and
urine

urine were very yellow, her stools of a clay colour. She complained of acute pain from the pit of her stomach to her back, with frequent vomitings. Her legs were much swelled, and pitted. I ordered her some pills of calomel, soap, rhubarb, and aloes, with anodynes occasionally. I confess I did not order these medicines with an intention of salivating her, but as deobstruents. She had not, however, taken them many days before a spitting came on; and I observed, before she had spit six days, which she did to about the quantity of a pint in a day, that her jaundice gradually decreased, and the swelling of her legs went off; and she was, after spitting about fourteen days, perfectly free from her disorder: but her spitting continued so troublesome, that it was necessary to check it, by frequently giving her lac sulphuris and nitre. She lived to the age of eighty, and never had any return of her jaundice. Her stools were examined, but no calculi found.

CASE

CASE II.

MRS NEILSON, an apothecary's widow at Manningtree in Essex, sent for me about the latter end of the year 1778. She was seventy years of age; very corpulent, and her legs œdometous. Her skin and urine were highly tinged with bile; but no bile was found in her stools. She had been affected with very acute pains in the biliary duct, which were now abated, but the obstruction still remained. She had been taking pills of soap, aloes, and rhubarb, with saline medicines, by Mr Nimn's direction. I ordered that these should be repeated, and that she should take five grains of calomel morning and evening. These she took till a spitting came on, which was kept up for a fortnight, to the quantity of a pint and a half daily, continuing the calomel, at the end of which time she was perfectly cured. Her stools were examined, but no calculi found. She died at the age of eighty-two, without any return of her disorder.

CASE

CASE III.

MRS REEVE, wife of Mr Abraham Reeve merchant in Hadleigh, Suffolk, a lady of a delicate habit, between twenty and thirty years of age, sent for me in November 1779. She complained of pain at the pit of her stomach: Her skin and urine were both yellow; and there was a deficiency of bile in the fœces. I was in hopes that calomel in small doses might open the duct, without salivating her. She took as under.

R. Calomel, gr. i.

Pulv. Rhab. gr. iii.

Sapon. Venet. ʒss.

Elix. aloes. q. s. ft. bolus mane et
vespere sumendus; superbibendo
mistruæ sequentis, ʒij.

R. Sal. Absynth. ʒij.

Succ. lemon. ʒij. Peracta efferves-
centia, adde

Aq. font. ʒv.

Sp. cinnam. ʒi.

Syr croci, ʒss.

Vini antim. g^{tt}. lxxx. M.

Although

Although the dose of the calomel was so small, she had not taken it a week before ptyalism came on, which, in a few days, opened the duct, and her jaundice went off entirely; a few doses of manna and Glauber's salts stopped the spitting, and removed all her complaints. It is now fifteen years ago, and she had no return. Gall-stones were sought for, but none found.

CASE IV.

IN June 1780, I was sent for to Mr Joseph Clark, a gentleman-farmer at Semer in Suffolk, aged seventy years. His skin and urine were very yellow; his stools white; and from the pain at the pit of his stomach, there was no doubt of his having biliary calculi. After an emetic, I ordered him the following medicines.

R. Calom. gr. i.

Pulv. rad. Rhab. gr. iii.

Sapon. Venet. gr. v.

Syr. simp. q. s. f. bolus omni nocte
et mane sumendus, superbibendo
mist. falin. ℥ii.

In

In about a week a ptyalism came, which was kept up by the continuance of his medicines, so that he spit about a pint and a quarter daily for two or three weeks. He was perfectly cured, and never had any return of his disorder. He died aged eighty. No gall-stones were found.

CASE V.

ON the 22d March 1781, I was sent for to Mrs French, a widow-lady of this town, (Hadleigh in Suffolk), about sixty years of age. She complained of acute pain, at times, in the biliary duct: her skin and urine were very yellow. After an emetic, I ordered her the following medicines.

R. Calom.

Aloes socot. ā. ā. gr. ij.

Sap. Venet. gr. viij.

Syr. simp. q. . s. ft. bolus mane et
vespere sumendus cum dosi mis-
turæ salinæ.

She continued the medicines for about three weeks without salivation, or removal of
the

the obstruction. She now became feverish : and I thought it better to omit the calomel, and give her some cooling medicines. She got rid of her fever : and on the 21st of May following, returned to the calomel, &c. but took only one grain for a dose ; which she continued for some time, without any abatement of her disorder. I then discontinued the calomel, keeping her bowels open with aloes, rhubarb, and tartar-emet-
tic, to which was joined a little soap, giving her opiates occasionally. From this time to the end of the year 1782, she took opening medicines only, but of which, and all others, she grew tired. She was persuaded to try some nostrum ; but her jaundice never left her. On the 8th of October 1783, I was desired to visit her again : She then took the following medicine.

R. Calom. gr. i.

Aloes soc. gr. iij.

Conf. cynosb. gr. v. ft. bolus omni
nocte vel alterna sumendus, si al-
vus astricta sit.

She took these, not always regularly, and opiates, till March 18. 1784 ; during which
time

time I saw her but seldom, Mr Simpson, who is since dead, her apothecary, having the sole care of her. On the 18th of March 1784, I was desired to visit her again. Her complexion and her urine were now of a colour between black and yellow; her stools without bile. I now had a wish to try what the addition of a small quantity of opium, to prevent the calomel going off by the bowels, would do. I therefore ordered as follows.

R. Calom.

Aloes soc.

Philon. Lond. ā. gr. iv.

Syr. simp. q. s. ft. bolus omni nocte
cum dosi misturæ salinæ sumen-
dus.

She continued in the use of these medicines for near a month before a ptyalism came on. She now, I believe, spit a pint in a day for near a month before any bile got into the duodenum; and even then it passed but in small quantity, and the colour of her skin was not altered. However, as the duct was not wholly obstructed, I prevailed upon her, supporting her with cordials

dials between her medicines, to persevere: which happily she did for more than two months, spitting every twenty-four hours about a pint and a half. She then was perfectly cured, and has had no return of jaundice since. She is now more than seventy years of age. No gall-stones were found.

CASE VI.

MRS GAME, in the neighbourhood of Needham-market, in the county of Suffolk, was, in September 1780, recommended to me by Mr Abbot surgeon at Needham. She appeared to be about forty years of age; had a biliary obstruction for more than a year. Her skin was of a blackish yellow. I desired Mr Abbot to try the effects of salivation from calomel: He did so; and I received a letter from him some time after, in which he said, "The bile then began to emulge." She lived some months afterwards. Mr Abbot thought the substance of the liver was indurated; and indeed I thought so

too; for she said she could, with her hand, feel her right-side very hard.

CASE VII.

MRS ELLIOT, a farmer's wife at Waldingfield in Suffolk, sent for me on the 3d November 1784. Her age between thirty and forty years. She had been affected with excruciating pains in the biliary ducts, for which her apothecary had given her laudanum frequently. When a gall-stone got into the ductus biliaris communis, jaundice always followed; when it fell back into the gall-bladder, the yellowness went off; and so on alternately. I prescribed for her as follows:

R. Calom. ppt. gr. i.
Aloes socot. gr. ii.
Sapon. venet. gr. vi.
Syr. simp. q. s. ft. bolus omni nocte
maneque sumendus, superbibendo
mist. salin. ʒij.

A ptyalism came on in a few days; and about the 13th of the same month, she voided a gall-stone which weighed ten grains. The spitting was kept up for about three weeks. She voided two more stones of the same size as the first, when she was perfectly cured. These calculi, which together weighed about thirty grains, were the lightest of their size I ever saw, though I have several hundreds by me. The surfaces were smooth, and without the least appearance of erosion: From this it seems to appear, that the mercury did not act upon the calculi, but so relaxed the ducts as so facilitate the exit of the stones.

But let us now review the first five cases, where every patient was cured, and no gall-stones found in the fœces. May we not reasonably suppose, as none of those patients had any return of the disorder, that the mercury in those cases acted as a solvent?

CASE VIII.

IN June 1784, I was desired to visit Mrs Harwood of Brightlingsea in Essex. I saw her but once; and from the symptoms and nature of her jaundice, I supposed it to be in consequence of biliary calculi. I desired Mr Inman, her surgeon, who lives at St Osyth, to try the effects of salivation raised by calomel: He did so; and I had the pleasure of hearing from him a few months ago, that, after spitting several weeks, she got perfectly well; and has had no return, though it is now eleven years since.

CASE IX.

MR CANHAM of Bemont-hall in Essex, a gentleman of about fifty years of age, consulted me, on the 7th of April 1785, on account of a jaundice, which, preceded by pain, came on and went off several times; but

but now continued longer than usual. I ordered the following medicine :

R. Calom. ppt. gr. i.

Rad. Rhabarb.

Pulv. Philon. Lond. ā gr. v.

Syr. simp. q. s. ft. bolus mane et
vespere fumendus, cum duabus
unciis misturæ salinæ.

On the 24th I was sent for to him. He was then spitting ; which I desired, by the continuance of his medicines, might be kept up for some weeks. It was so ; and his jaundice left him. No calculi were found. On the 10th of February 1787, his jaundice returned ; and the same medicines were again resorted to. I forgot whether he was salivated or not the second time ; I therefore wrote to Mr Vesey, a surgeon at Thorpe in Essex, to know what he recollected of Mr Canham's case. His answer is as follows.

DEAR SIR,

Agreeable to your request, I have inspected my books, and find Mr Canham was put upon a mercurial course on the 7th of April

T 3

1785,

1785, and kept in a gentle salivation to the 23d of June following, till the jaundice entirely disappeared.

On the 10th of February 1787, upon the jaundice making its appearance again, he then was put upon the same mercurial course, which he took for ten days, which carried off the jaundice; but, to the best of my recollection, it did not bring on salivation, only slightly affected his mouth. He never had any further appearance of the jaundice; nor were there any calculi found.

I am,

Sir,

Your most humble servant,

WM VESEY.

Thorpe, 4th Sept. 1795.

To Dr Gibbons, Hadleigh, }
in Suffolk. }

CASE X.

In August 1785, I was desired to visit Mrs Bennet of Kirfy. She appeared to me to be about thirty years of age. I ordered her
some

some pills, composed of calomel, soap, and rhubarb, which soon brought on a ptyalism, and her jaundice (for that was her disorder) was gradually going off; when Mr Rose, her surgeon, since dead, not knowing my intention, gave her several doses of manna and Glauber's salts, till her spitting was considerably abated; and, as that diminished, her yellowness returned in proportion, and increased. I desired him to repeat the calomel, &c. till the spitting returned; which he did for two or three weeks, when she was perfectly cured. From the symptoms, acute pain, &c. at times, there was no doubt that her jaundice arose from calculi. Whether her stools were or were not examined, I cannot tell. She has not had, now for ten years past, any return of the disorder.

CASE XI.

MR GOLDEN, a tanner of this town, (Hadingham), sent for me on the 5th of July 1788. He had a jaundice, which, from the symp-

toms, there was no doubt arose from biliary calculi. He was about forty years of age, of a very corpulent habit. I prescribed for him as follows :

R. Calom. ppt. gr. i.

Pulv. Rad. Rhab.

Philon. Lond. ā gr. v.

Syr. simp. q. s. f. bolus mane et vespere fumendus superbibendo mist. falin. ʒij.

About the 10th of the same month, one grain more of calomel was added to each bolus. On the 12th, his gums grew sore, and spitting came on plentifully ; which was continued to the 15th, when the duct was opened, and a large quantity of bile found in his stools. His jaundice went off soon, but his spitting was so great, to upwards of ℥ij. in a day, that I thought it necessary to check it, by giving him frequently doses of lac sulph. and nitre. His stools were examined, but no gall-stones found. It is now seven years since, and he has had no return of jaundice.

CASE

CASE XII.

MRS PERKINS, wife of a gentleman of the law at Manningtree in Essex, sent for me on the 9th of December 1790. Mr Rogers, her apothecary, said she was, in the beginning of her disorder, troubled with acute pains at the pit of her stomach; that yellow-
was followed, which, though the pain was sometimes abated, did not wholly go off. He had given her soap, rhubarb, aloes, &c. but the jaundice kept increasing. Her complexion was of a colour between black and yellow. I thought there was no time to be lost; I therefore prescribed for her as follows:

℞. Vini. ipecac. ʒi.

Antim. tart. gr. i. M. ft. haustus statim cum regimine sumendus.

℞. Rad. Rhabarb. pulv.

Conf. opiat. ā ʒss.

Syr. simp. f. bolus post emet. operationem sumendus.

And

And the following morning, to begin with the boluses and mixture as under :

R. Calom. ppt.

Phil. ex aloe.

Conf. opiat ā gr. iii.

Syr. simp. q. s. f. bolus mane et vesp.
fumendus cum mist. salin. ʒij.

As she was costive, I ordered the following injection :

R. Decoct. pro enemate, ʒx.

Olei olivar.

Syr. bacc. spin. cerv. ā ʒij.

Pil. ex aloe, ʒij.

Sap. moll. ʒss. M. statim tepide inji-
ciend.

The glyster procured very little discharge of fæces ; I therefore ordered the following pills :

R. Calom. ppt.

Pil. ex. aloe, ā gr. v.

Syr. sacch. q. s. f. massa in pilulas duas
dividenda, vesp. summend. et si al-
vus astricta fuerit mane repetend.

These did not open the bowels sufficiently ; therefore, on the 13th, (when I saw her again), I ordered the pills to be repeated
every

every four hours, with three spoonfuls of the following mixture, till a free passage should be procured :

R. Infus. fennæ, ʒv.

Tinct. fennæ, ʒv.

jalapii, ʒiij.

Syr. rosar.

Kali tart. ā ʒij.

Mannæ, ʒss. M.

December 15. The medicines had procured a considerable discharge of fœces, but not tinged with bile. I therefore ordered for her as under :

R. Calom ppt.

Ocul. cancr.

Conf. Ros. ā gr. v.

Syr. simp. q. s. ft. massa in pilulas
mediocres divid. statim sum. cum
dosi mist. salin.

She complained of great weakness and languor ; therefore the following cordial mixture was ordered :

R. Tinct. lavend. comp.

cast. ā. ʒiij.

Aq. destill. ʒv.

Syr. facch. ʒiij. M. cap. cochl. ij. vel
iij. larga, in languore.

Spitting

Spitting now came on ; and her urine was not so loaded with bile as it had been : but a purging supervening, checked the spitting ; and she grew more yellow. On the 18th, I ordered calom. gr. iij. joined with a few grains of conf. opiat. to prevent its running off by the bowels, to be taken twice in a day. I was now fearful that the substance of the liver was affected, as a round prominent tumour was to be felt in the region of the liver. But as her fever was not high, I ordered the calomel to be continued : and this day the spitting returned plentifully ; and for about ten days, she spit every twenty-four hours not less than a pint and a half. Her skin and urine became every day of a better colour ; and there was plenty of bile in her stools. The tumour, which was before prominent, now felt flaccid and knotty, not unlike, as Mr Rogers, her surgeon, and a practitioner in midwifery, observed, a placenta. During the time the ducts were open, she voided an astonishing quantity of black fabulous matter in every stool ; and which, when put upon a hot iron, burned like pitch, omitting

mitting a very offensive smell. She continued spitting, and voiding this biliary sandy-like matter, till about the 17th of January 1791; the liver gradually decreasing, and now nearly of its natural size. There is great reason to suppose, from the knotty state of the liver after the bile had got a free passage, and the tumour lessened, that not only the ductus cysticus, and ductus hepaticus, but that the pori biliarii were likewise obstructed; for I do not think it possible for a human gall-bladder to contain a fourth part of the calculi she voided, not much larger than sand. Did the mercury in this case diminish the size of the calculi? The lady had resolution enough to persevere in the use of her medicines and spitting to the end of the month, or some time longer; and happily got rid of her disorder. There was one stone voided, the last that passed, about the size of a pea.

CASE

CASE XIII.

MRS PHILLEBROWN, mother to Mrs Marratt, a banker's lady at Manningtree, sent for me in April 1787. But as my attendance was not a regular one, I wrote to Mrs Marratt for information, in the following terms; and I received the annexed answer.

MADAM,

About eight years ago, I was desired to visit your mother, who had then a jaundice, arising, I suppose, from gall-stones. If I recollect right, Mr Rogers, her apothecary, said she had had several fits of it before I saw her; that after acute pain, yellowness followed; further, when she was free from pain, the yellowness abated. I well remember that I wished her to be salivated, and prescribed medicines for that purpose. But as my attendance was not a constant one, I could not be so exact in observing the progress, as otherwise I should have been. I have thoughts of publishing upon this disorder; therefore

therefore shall be much obliged to you to inform me of what you recollect of her case. The following questions will perhaps assist you. How often, before I saw her, had she returns of her disorder? After spitting came on, how long did it continue? After the spitting went off, had she ever any return of jaundice? If her stools were examined, were there any gall-stones found? What did she die of, and at what age? An answer, when convenient, will much oblige,

Madam,

Your obedient servant,

THOS. GIBBONS.

HADLEIGH, }
6th April 1795. }

Answered.—*Dedham, April 11. 1795.*

SIR,

In answer to your letter respecting my dear mother, I can say, I very well remember your prescribing the medicines for her, (at a time there was but little hopes of her recovery), which caused her a very fore mouth, and a salivation. She had always
been

been subject to a jaundice and bilious complaint. I must say, I think those medicines lengthened her life the remaining years, as she never had any return of the jaundice; but looked upon herself worn out, the last year or two, being seventy-six years of age. We would many times have wished to have had Dr Gibbons to her; but as she had no particular disorder to point out, we could not persuade her to it. In answer to the questions you have given me: 1st, She had always been disordered with a bilious habit and jaundice. 2dly, I think her spitting continued three or four weeks. 3dly, It certainly recovered her, as I do not remember she ever had any return of the jaundice. 4thly, No gall-stones were found; what came from her was not regularly examined. 5thly, At the age of seventy-six, she had an easy passage out of this world. I believe she always thought highly of the medicines; and had she had any return, you certainly would have been sent for.

I am, &c.

G. MARRATT.

In

In only one case have I tried the effects of calomel in inflammation of the liver. Some years ago I was desired to visit Mr Griggs, a linen-draper in Hadleigh, aged about forty-five years; whose liver was so much enlarged, that a tumor of the right side might be seen. He had a considerable degree of fever; was very yellow; his stools deficient of, but not without bile. I ordered him calomel, which he took for several weeks; but no spitting followed. The calomel was omitted; but his disease at last proved fatal. Does not inflammation prevent the mercury from affecting the salivary glands?

II.

A Case of Hydrocele, cured by Injection. Communicated to G. Pearson, M. D. by Dr David Hosack, of New York.

A MAN about forty-five years of age, of a full habit of body, captain of a vessel trading to the East Indies, sent for me, on the 20th May 1795, to examine a tumor on the left side of his scrotum. Upon inquiry, he told me he had first discovered it when in the East Indies, about six years since; from which time it had gradually increased in size, but without any injury to his general health.

Upon a careful examination of the tumor, by the usual tests of hydrocele, it proved to be that disease; the testicle itself, which was easily felt at the back-part of the scrotum, appeared also to be much enlarged. Satisfied as to the nature of his disease, he became
anxious

anxious to have it removed as speedily as possible.

He being an intelligent man, I described to him the different methods which had been employed for the cure of it: He did not hesitate to give the preference to the one which would probably be the least painful; that is, the method by injection, as practised at present by Mr Earle, surgeon in St Bartholemew's Hospital, in whose hands I have several times witnessed its success.

Having ordered his bowels to be emptied, as preparatory to the operation, on the morning of the 21st, in presence of Drs Post, Hammerley, and Tillary, three eminent physicians in this city, I drew away, by means of a trocar, upwards of a pint of water, having the appearance and smell of urine; the testicle proved to be considerably enlarged. I immediately, by the apparatus employed by Mr Earle, injected a mixture of wine and water, in the usual proportion of two parts of the former to one of the latter, until the scrotum became distended to the size it had acquired before the operation.

The injection at first gave him little or

no uneasiness; but upon being retained five minutes, he began to complain of pain. I immediately withdrew the liquor; suspended his scrotum by the assistance of the T bandage; put him to bed, and gave him fifty drops of laudanum.

His pain soon abated, but returned in the evening, with considerable swelling. I repeated his anodyne at bed-time, which gave him a comfortable night's rest. On the 22d, its size had increased, but was attended with very little pain: From this time, it continued to increase until the 26th, when it became nearly as large as before the operation, attended with redness, and other symptoms of inflammation. On the 26th, I ordered him two ounces of Glauber's salts, in divided doses, and a poultice of bread and water to be applied to his scrotum. On the 27th, the tumor and inflammation began to subside; and, in the course of six days more, entirely disappeared, except that the testicle still remained much larger than its natural size; but in a few days, it also began to diminish.

In three weeks from the operation, he was completely freed from every symptom of hydrocele; the testicle had nearly recovered its natural size: he went about his business, to prepare his vessel for sea: and since that time he has enjoyed good health, without the least symptom of a return of his complaint. I have also since witnessed the same operation successfully performed by Dr Post.

III.

A Case of Obstinate Constipation of the Bowels, cured by Calomel. Communicated to Dr Pearson, by Dr David Hosack, New York.

A CONSTIPATION of the bowels is a disease familiar to every physician ; but when it has been of long continuance, and at last removed, it is of importance to become acquainted with the means of cure : Every case of this kind is instructive and useful, although it may only serve to confirm us in principles already known.

Samuel Denton, clerk in a dry-goods store, aged twenty, of a bilious habit of body, sent for me on the morning of September 28. 1795. He complained of great uneasiness and griping in his bowels, attended with slight chill, a coldness of his extremities, and a small but regular pulse. Upon inquiry, he told me he had been attacked in the night ; and ascribed his complaint to some honey he had taken in the evening at his tea ;

tea; adding, that it had frequently served him so before, and that he was subject to colic and costiveness upon any irregularity of diet, or upon imprudent exposure to cold. He informed me, that about five days before, he had had a slight attack of the same sort, brought on in the same way; and that, since that time, his stools had been much more watery than usual. From this last circumstance, I am disposed to date his disease from September 23. the time of the first attack, seeing that his stools, since that time, were not of their proper consistence; but lest there be any error in the calculation, I shall date it from September 28.

Early on the morning of the 28th, upon which I first visited him, he had taken an ounce of castor-oil, which at two o'clock in the afternoon had not operated. Immediately I sent him the following mixture, directing him to drink freely of thin chicken-broth.

R. Pulv. rhei, ʒij.

Magnes. alb. ʒj

Aq. Menthæ, ʒiij. M. Sumt. dimidium statim et alteram partem tertia hora postea, si opus sit.

U 4

At

At four o'clock, his pains increasing, I ordered enemas of warm water, sweet oil, and molasses, to be administered every two hours, until his bowels should be emptied: they were accordingly exhibited, but without any good effect. At eight o'clock in the evening, I gave him ten grains of calomel. In the night, his pain and other symptoms became so violent, as to threaten inflammation of his bowels; his pulse, as is common in inflammations of this sort, was small and tense: I immediately opened a vein in the arm, and, observing his pulse to rise, I drew between sixteen and twenty ounces of blood, which in a few minutes became covered with a strong sily coat. I ordered a large blister to be applied to his belly; the glysters to be repeated with an addition of Glauber's salts, and to be thrown up in large quantities. On the 29th, symptoms of great inflammation still continuing, I again bled him very largely; gave him a scruple of calomel, with one grain of opium: I ordered the injections to be repeated every hour, and flannels wrung out of warm water to be applied to his belly every quarter of an hour:

hour: All which were done with the most scrupulous attention. In the afternoon, the calomel was repeated without the opium. In the evening, finding no prospect of relief, I thought it necessary to have the advice of some other physicians, when Professors Bayley and Post were called in.

It was proposed by those gentlemen to employ the warm-bath, and to take away a few more ounces of blood; which were accordingly done. By these measures, the inflammation was subdued, but without effecting any discharge from the bowels: the injections were continued from time to time, but came away as they were exhibited, without the smallest feculent smell.

The calomel was repeated in doses of ten grains every six hours, which sat well upon his stomach. It may be proper here to remark, that throughout the whole of his complaint, his stomach was remarkable retentive, compared with the usual irritability of the organ in diseases of this nature; so much so, that the calomel was not rejected in any one instance. 30th, The calomel, warm-bath, and injections, were continued.

Without

Without a tedious detail of each day's prescriptions, suffice it to observe, that after continuing this plan of treatment for several days without benefit, it was thought expedient to administer other purgative medicines in addition to the calomel, and to vary the composition of the injections. Accordingly, we had recourse to pills composed of jalap and cream of tartar, of each equal parts, which are much esteemed in obstinate costiveness; but in this instance they were exhibited for several days without any apparent advantage.

Still continuing the use of the calomel as before, we next made trial of the castor-oil: when he had taken to the quantity of about a pound of this medicine, it became offensive to his stomach; and we desisted from its further use.

As his bowels appeared to have lost all sensibility to the operation of these medicines, we had recourse to those of a more active nature, viz. the pill *cocciaë* and gamboge, combined with jalap: These were given in considerable quantities; but they heated his system to such a degree, that we
thought

thought it hazardous to proceed further in the use of them.

Soap being recommended by some of his friends as an infallible remedy in complaints of this sort, with the view to their gratification, it also was given in large quantities.

But none of these medicines appeared to produce any good effects with our patient. The injections were also varied : instead of the warm water, sweet oil, molasses, and Glauber's salts, we made use of warm water, castor-oil, and molasses, with Glauber's salts, and a few spoonfuls of the infusion of tobacco : injections of tobacco-smoke were also tried : And, lastly, injections of strong soap-suds, which in less violent cases frequently afford relief.

The tobacco-smoke, and the composition containing the infusion of tobacco, occasioned considerable griping, with narcotic effects, and also greatly weakened our patient, but without producing any evacuation from his bowels.

There are many instances recorded of the good effects of dashing cold water upon the extremities in cases of obstinate constipation ;

pation; but in the present instance, which appeared to challenge the whole *Materia Medica*, this also proved unsuccessful. Thus foiled, we concluded to rely upon the calomel, and to solicit its operation by occasional mild glysters.

Such was the plan of treatment from the 30th of September until the 19th of October, when he first began to complain of soreness of his gums, attended with a rumbling of his bowels, and inclination to go to stool: at this time he had taken 480 grains of calomel, and of the best quality, beside the medicines already related.

We now considered the situation of our patient to be more favourable; for I believe it is a general remark among practitioners, that when the calomel affected the mouth, it is attended with a corresponding operation upon the bowels, and shortly after produces a discharge by stool.

Accordingly, upon the morning of the day following, viz. the 20th of October, the 22d day of his disease, his injections came away covered with *fœculent* matter; in the evening, they were followed with moderate discharges

charges of fœces, in small hard lumps, and extremely foetid. On the 21st, his stools became frequent, but in lumps of hard consistence; and thus continued for three or four days.

We now desisted from the use of the calomel; ordered him the free use of broths and gruels, which, throughout his disease, had been allowed him but in small quantities. In eight or ten days, his bowels appeared to have recovered their natural state; his strength returned; and he paid a visit to his friends and relations in the country, who were equally rejoiced and astonished at his recovery.

IV.

History of a Case of Cynanche, attended with Symptoms of a high Degree of Putrescency, where a favourable Crisis succeeded a Paroxysm of furious Delirium. By Dr Andrew Crichton, of Westmoreland parish, Jamaica.

WEDNESDAY, February 25. 1795, Mr C. P. aged about thirty-eight, of a healthy and robust appearance, was yesterday seized with fever, which has continued ever since, attended with considerable inflammation of the tonsils, and difficult deglutition. His pulse is frequent, but not full or hard; and he complains much of his head and back, great thirst, restlessness and uneasiness. He took some calomel and jalap in the morning, which has operated several times, but not for these three hours past, (five o'clock, P. M.)

Capt. pulv. Jacob.

P. jalap. ā gr. v. secunda quaque hora, donec supervenerit catharsis.

Thursday,

Thursday, 26th. He only took two of the powders till they operated; and has been using an astringent gargle. During the night, he had a good many stools; but the fever still continues. His other complaints are much as yesterday. Bibat. solut. nitros. et capt. spir. C. C. gt. xx. secunda quaque hora. At eleven, A. M. the fever went off; but he still complained of his head and back; the inflammation of the throat is much the same, attended with frequent hawking of viscid phlegm. The gargle was now changed for a mixture of salt and lime-juice. The fever kept off till about six in the afternoon; the physic operating all day, in-
somuch, that he complains of considerable weakness from it, and very much of the want of sleep. Capt. laud. liq. gt. xx. spt. C. C. gt. xl. h. s.

Friday, 27th. The fever continued during the greatest part of the night; but is now entirely off. The diarrhæa is much abated, but not entirely gone. He thinks himself considerably easier, but still complains much of his throat. He was now directed to take thirty grains nitre, with
half

half a grain tartar-emetic, every two hours; to continue the gargle, and inspire the steam of hot vinegar frequently, to have the liniment. volat. applied to his throat; and if not relieved soon, to have a large emollient poultice applied in its stead: should the looseness be urgent, to repeat the laudanum and hartshorn at night; and endeavour to take a little light food frequently.

Monday, March 2d. I was now under the necessity of leaving him; and did not get back till this day, when I found him in a very alarming situation: The fever had returned in the evening of the 27th, and continued ever since: his skin had acquired a yellow tinct; his pulse was frequent, irregular, and very weak; the inflammation of the throat of a much deeper red; and two or three small ulcerations on the tonsils; the thirst very urgent; the tongue furred and blackish; and he complained of a burning pain in the course of the œsophagus, when he swallowed any thing even of the mildest nature. He had no sleep, nor could he bear food of any kind.

He

He had taken no medicine of any kind from the time I left him, nor used the other remedies. A very eminent practitioner (Dr Hugh James) had been called in, and arrived at the same time with me. He was now ordered to take a large dose of Peruvian bark, in a glass of equal parts of Madeira wine and Seville orange-juice, with two teaspoonfuls of brandy. Cloths dipped in pepper, vinegar, and camphorated spirit of wine, were applied round the throat, and to the pit of the stomach. Should the bark not be retained, it was ordered to be given in glysters of rich mutton broth, with two teaspoonfuls of laudanum in the first. Nourishment was directed to be given frequently: and he was ordered to have thirty drops of laudanum at night, if he had no sleep previous to it. Should the application to the pit of the stomach have no effect in preventing the rejection of the bark, sinapisms were directed; and at last, a blister of it, should it be requisite. After taking four doses of the bark, he vomited it; he had taken twenty drops of laudanum with the first. The glysters were now had recourse

to ; but, after two had been given and retained, the bark was again tried by the mouth, and staid very well : however, we persevered with glysters likewise.

Tuesday, March 3. His pulse this morning was considerably better ; and the bark had been retained both by the mouth and in glysters. He was now ordered a pill of Cayenne extract between every two doses of the bark ; and as the throat appeared rather worse, to use the pepper-gargle instead of the salt and lime-juice : a bath of a decoction of bark was prepared ; and he was directed to remain in it as long as he could with ease to himself, every three or four hours. A glyster of Seville orange-juice was directed to be thrown up between every two of the bark, and to be used as the vehicle instead of the mutton-broth. All his drink, which consisted principally of wine and water, was ordered to be acidulated. The glysters of the bark with Seville orange-juice, however, were not retained. Towards noon, a hic-cough came on, which continued to increase. The bark-bath was highly grateful to him ;
and

and he remained in it, at one time, for two hours together. He complained now of a frequent inclination to void urine, which was passed in small quantities, with a good deal of uneasiness, of a deep yellow colour, and very glutinous. His other symptoms seemed rather to increase, particularly the yellow colour of his skin; and his countenance began to approach the facies Hippocratica; his stools were intolerably fetid.

Wednesday, 4th. Glysters of fixed air were now had recourse to, and were given alternately with Seville orange-juice alone. The hiccough, which had been very troublesome, seemed to be a little while stopped after the first glyster of fixed air, but soon returned. He retains all his medicines and food; but the fetor of the stools and the yellowness increase, as also the ulcerations of the throat; his pulse, however, does not sink, though it is still very feeble and irregular. During last night, he was a little delirious, and still continues so. A quantity of Seville orange-juice was added to the bath; and twenty drops of muriatic acid has been given with each dose of the bark.

Thursday, March 5th. The quantity of urine has been much greater since yesterday; but every other symptom, except the pulse alone, seems much more unfavourable. The bark was directed to be given in a cold infusion of snake-root and orange-peel. A saline draught has been given every three hours; and as the glysters of Seville orange-juice were not retained for any length of time, they were left off entirely, and fixed air injected in their stead. The delirium has been rather increasing all day; and the pulse began, about twelve o'clock at noon, to increase gradually in strength, till towards night, when it became very full and strong. The delirium now rose to fury, and the pulse continuing to rise in proportion, I left off all his remedies, and had his head shaved, and bathed it with cold vinegar. The fever continued for three hours; but afterwards gradually subsided, and left him in a very exhausted and enfeebled state. His pulse, however, was considerably mended; did not fall so low as from his appearance might have been expected, and never after had the smallest irregularity.

Friday,

Friday, March 6th. His bark and other remedies were resumed this morning: the delirium is not abated entirely. Towards afternoon, he vomited the bark he had been taking during the day, and seemed considerably relieved by it, and afterwards appeared to be much more rational and composed. The decoction of bark was now given alternately with a cold infusion of snake-root. He took nourishment with some relish; and slept well during the night, for the first time since the commencement of his illness. The quantity of urine, during the day, amounted to near two gallons, and was very yellow and glutinous.

Saturday, March 7th. Much better in every respect; the pulse regular and firm, and not quicker than natural. His decoction, infusion, and bath, were still continued; but the glysters were left off, and nourishment was given frequently.

Sunday, March 8th. Continues to recover. From this time his strength gradually returned. The yellowness did not entirely disappear for near a month; and he was a good deal affected with costiveness. He is

now in as good health as he ever was in his life.

The circumstance which might be considered as very extraordinary in the above case, was that of the violent temporary excitement which took place as the crisis of the complaint, at a time when the powers of life seemed to be ebbing so very fast, and putrefaction seemed already to have taken place. A more extraordinary case was related to me, which made me more attentive to the progress of the symptoms in this one, than otherwise I might have been. A gentleman of the parish of Hanover had had a fever of the same kind, and was, in consequence of it, reduced to the most dangerous extremity. Cold sweats, hiccough, and prodigious tumefaction of the belly, all seemed to indicate that death was near at hand. Glysters of fixed air were had recourse to ; and, in the course of a few hours, from a state of the utmost debility, a furious delirium came on, attended with so strong and permanent symptoms of phrenitis, that large bleeding, and other remedies of that nature, were employed, and with the best effects. This I had
from

from two gentlemen of eminence in their profession, and whose authority I can depend upon. The story is well known to most practitioners in this parish. I have looked over all the histories of cures I could fall in with, where fixed air has been exhibited; but could never find a circumstance in the most distant particular resembling the above, except in one related in the Medical Commentaries, but where the disease proved fatal at last.

V.

History of a Case of the Epidemic Fever of Jamaica terminating successfully; in which a very large quantity of Mercury was employed, without any obvious Operation during the Fever. By Dr Maclarty, Physician in Jamaica.

ON the 9th of January 1795, C. M—, in the twenty-fourth year of his age, was attacked with slight fever, the symptoms of which were less severe than usual: by degrees the fever increased, and the head-ach, which at first was but inconsiderable, became extreme. He now also complained of a pain in the small of his back, with general lassitude; his countenance was flushed; his pulse quick, and not full or tense. In this situation, he was evacuated plentifully, first by a purging ptisan, and afterwards, as the fever still kept up without the smallest remission, with James's powder and calomel, gr. xvi. of the former, viij. of the latter, made into four pills, one of which he took every two hours. On Saturday, he had a slight remission,

remission, but of short duration. The fever and other symptoms returned with equal violence; the pills were again repeated, and he vomited a good deal of pure bile. During the whole of Sunday, there was no abatement of the fever; he was plentifully supplied with thin gruel, mint-tea, thin sago, &c. and the skin endeavoured to be kept open by small doses of James's powder, repeated every hour. In the course of Sunday night, there was a gradual remission; and towards Monday morning, a perfect intermission.

The bark was immediately had recourse to, and regularly given in drachm-doses every hour; our patient was at this time chearful, and apparently in the most promising way. In the evening the fever returned: he passed a restless distressing night; and on Tuesday morning was in every respect altered for the worse. The fever was intense; the skin hot and dry; laborious respiration, great restlessness, and constant tossing his limbs and changing his position in bed; considerable delirium attended, with a kind of lethargic stupor, and a particular cast of countenance and glossy eye, which
altogether

altogether exhibited the most hopeless prospect. A blister had been applied the night before, between the shoulders, with a view to relieve the head-ach; and he had also taken some camphorated medicines.

Having experienced, in the course of a very extensive practice, the best effect from the exhibition of mercury in the prevailing epidemic, I instantly adopted the determination to try this remedy; and accordingly ordered, at eight o'clock on Tuesday morning, five grains of calomel, to be given in the form of a pill every hour. At ten o'clock, my friend Dr —— called; and we agreed to consult Dr ——, a physician of great eminence and much experience: He was accordingly called in; and gave it as his opinion, that it was all over with my poor friend M——. For form's sake, he told us we might prescribe a decoction of bark with snake-root.

In this very distressing situation, I was pleased, when I mentioned to Dr —— my honest sentiments on the only remedy I conceived possible to operate the smallest change for the better; he candidly said, he
had

had no experience of it ; and the only case which he had attended, with another physician, treated on this plan, had proved unsuccessful ; but, he added, this is a case which warrants any trial. At this period he had taken three of the pills prescribed. At eleven o'clock, of ʒij. of strong mercurial ointment were carefully rubbed in on the lower extremities ; the pills were continued every hour, as nearly as circumstances would permit. At two o'clock the friction was repeated, and again at bedtime, on the abdomen and upper extremities ; so that, by Wednesday morning, he had taken 105 grains of calomel, and used one ounce of the strong mercurial ointment most accurately rubbed in. The consequence of this plan was most astonishing : The stupor and debility went gradually off ; the skin become soft and open ; the pulse full and less frequent. The morning before, deglutition was with difficulty performed, and he could now raise himself in bed, and take his drink or medicine. As the fever had now entirely subsided, there was only one friction of ʒij. used in the course of Wednesday,

Wednesday, and no pills. We thought we might confide in the bark, which was given every hour, a dram of the powder in a wine-glassful of the decoction. Under this treatment, he got rapidly worse; and, to my grief and astonishment, when I saw him on Thursday morning, he appeared to me, and to every medical gentleman, nurses, and friends, totally and irrecoverably gone. I now lamented the interruption to my original plan, and could not help accusing myself as accessory to the fatal change, which appeared inevitable.

I should observe, that mercury produced no sensible operation, either as affecting the mouth or bowels; on the contrary, we were obliged to procure evacuations by occasional glysters.

To profit as much as possible by past errors, immediate orders were given to push the mercurial course by friction, and the pills without interruption, till death, or some more pleasing change, should take place. This was faithfully followed up under the inspection of his friends; and I am now happy to have it in my power to say, with the most
wonderful

wonderful good effects. He has had no return of fever since Friday morning; and since that period he has been gradually gaining ground.

He has used altogether 270 grains of calomel, and twenty drams of the ung. merc. fort. without as yet giving the smallest taint to the breath.

As I always conjoin the bark when my patient's stomach will bear it, he has also taken between three and four dozen dram-doses, and a good deal of the decoction.

VI.

Observations on the Epidemic Fever of Jamaica: With the History of a Remarkable Case terminating fatally; in which a great quantity of Mercury was employed without any obvious Operation. By Dr John Todd, Physician in Jamaica.

AMONG the many interesting events of the present times, none has excited more attention in the minds of general observers, than the epidemic we have hitherto denominated the Yellow Fever, a name given it in the early stage of its appearance, and still retained, as distinguishing it from every other disease. The colour that has given this appellation, does not, in my opinion, proceed from an absorption of bile, diffused over the surface of the body, as in jaundice, as neither the eye nor urine are changed by its appearance: but the skin, towards the close of the complaint, puts on a dusky hue, indicating a
dissolution

diffolution of part of the red globules of the blood, and their escape generally into the capillaries.

In the detail of the following case, you will observe nearly all the symptoms that have usually marked the different periods of the fatal epidemic.

Miss W——, a young lady from Scotland, eighteen years of age, after residing about nine months in this country, in a healthy situation, unexposed to any excess of heat or cold, or to any particular circumstances that could affect a vigorous and sound habit of body, was, in the morning of the 1st February 1795, taken ill with fever. She complained of acute pain in the head, particularly over the eyes, sickness at stomach, with much inclination to vomit; the general heat great, countenance florid, eyes watery, with considerable restlessness and anxiety; her pulse beating about 120 in a minute, full and strong. She took immediately five grains of calomel, and a wine-glassful of a mixture of salts and manna every hour after. In the evening, I found a continuance of the same symptoms, notwithstanding the medicine

cine had operated eight times copiously. She got ten grains of calomel at bed-time, which continued the operation through the night. On the morning of the second, the whole of the symptoms were nearly the same : She was then ordered some of the absorbent powder, with a little jalap, to correct and carry off a sourness which she complained of feeling in the mouth, and of belching from the stomach. The medicine gave her several evacuations ; and, as the pain of the head continued, a blister was applied to the neck, to mitigate or remove it.

At this time she began to vomit every thing that was given her. A saline mixture was ordered to be taken, with a proportion of lime-juice, in the act of effervescence, to counteract the irritability of the stomach. These means appeared to have succeeded. From the morning of the third, all her symptoms were much relieved, a slight pain of the head excepted. She had perspired freely through the night, had slept a little, and was tranquil and composed through the whole of it.

It

It was now thought prudent to begin immediately the administration of the Peruvian bark. She took doses of sixty grains by the mouth; and got an injection every two hours, in which were 120 grains of the powder: she retained about eight doses of the powder by the mouth. But towards evening, an accession of all the former symptoms took place. As the vomiting was the most distressing, a blister was applied to the stomach, with a view to allay it, which it did as soon as its operation was effective. About midnight, she was attacked with a new and painful symptom, a violent hic-cough. A foetid mixture was given to relieve it; and as the heat and pulse were again moderate, the bark-glysters were continued. She began, about ten o'clock in the forenoon, to complain of a severe burning heat, all through the œsophagus, as if what passed that way scalded her. A blister was immediately applied over the whole course of the gullet: but as the vomiting of every thing she took continued after this, calomel was resorted to, as the only thing from which there was any hope of obtaining

Vol. I. Y relief.

relief. All the symptoms were now highly aggravated, with incessant change of position, great anxiety, and considerable delirium.

She began with five grains of the calomel every hour, washing it down with a little sago or gruel. The vomiting continued the whole day and night, but it did not appear that any of the calomel pills were returned. On the morning of the 5th, the matter brought up changed its colour to blackness, resembling the grounds of coffee, and usually distinguished in this disease by the name of the black vomit. Four ounces of strong mercurial ointment were rubbed into the legs and thighs through the day, and the calomel continued as before.

About this time a dusky colour was observed to diffuse itself over the face, neck, and breast; the pulse returned to its natural state; the skin became moist; and the delirium and restlessness were greatly abated. Except the circumstance of the continuance of the vomiting of black matter, every thing wore a favourable appearance. The mercurial frictions were renewed on the morning
of

of the sixth, and the calomel continued as before.

It had been found necessary on the fourth, the fifth, and this day, to give a laxative glyster, to procure one or two evacuations each day. The fœces passed nearly resembled the matter thrown up from the stomach. Towards the close of the day, the disposition to vomiting increased, the pulse diminished in force and quickness, and the delirium was considerably augmented. The dose of the calomel was enlarged through the night; the frictions were continued, and wine given after every dose of the medicine.

On the morning of the 7th, profuse sweats took place through every part of the body. The pulse sunk to a thread-like vibration; she became tranquil, and sensible of her approaching death: The dusky hue became more general over the body, and the belchings of black matter from the stomach were frequent; thus declining in strength, till about seven o'clock in the evening, when she expired, having taken 500 grains of calomel, and used by friction eight ounces of

the strong mercurial ointment, without any of the usual effects of that medicine being perceived. She had no hæmorrhage; nor did the hiccough return after the use of the fetid mixture; and the complaint in the gullet yielded to the effects of the blister.

The error committed in this case was delaying the exhibition of the calomel until the stomach had lost the power of being influenced by its action: This arose from the reluctance of the family to the use of this remedy, much public discussion having taken place, and much difference of opinion being entertained, respecting the usefulness of this medicine in the prevailing epidemic.

The observation of the first importance in this disease, respects the affection of the stomach in an unusual and peculiar manner, indicating that organ to be the principal seat of the complaint; for it is a fact a thousand times experienced, that calomel has been given to the amount of five or six hundred grains, without displaying any action on the stomach or intestines, though, during that

that period, the usual dose of any purgative medicine has succeeded in its common operation. It has also been observed, in almost every case, that where the mercurial has affected the salivary glands, and produced ptyalism, the patient has recovered. On every occasion where I have seen the Peruvian bark given, it has invariably increased the irritation of the stomach, the heat, and the quickness of the pulse; and when it has been introduced into the intestines by injection, considerable tumefaction and pain about the navel has taken place; and, in some cases, a total stoppage of the urine.

After a salivation has succeeded the use of calomel, the Peruvian bark is generally given with success, to restore the tone of the stomach, and to restrain the discharge from the mouth. The cold-bath has been lately tried without success. Blood-letting, which excited so much discussion, and had so many advocates in consequence of the temporary abatement of the general symptoms, is now very nearly abandoned; nor

was it relinquished by its supporters, but on the most complete proofs of its fatal effects. Indeed, the minds of medical men appear now to be made up as to the most proper treatment of this fever; and in mercury is placed their sole dependence.

VII.

The History of a singular Case of Diabetes, successfully treated by Dr Peter Shee, Physician at Kilkenny.

MR P. C——, a glazier, about sixty years of age, of a full habit, rather below the middle stature, retired from his business, with a very ample competency, to an inactive and rather luxurious mode of living. In the spring of 1794, he was attended by an eminent physician, for what was said to be an attack upon his liver, and got well. In the month of September following, he was again attacked; and another gentlemen being called in, it appeared that he had got a diabetes. In order to meet the disease, the medicines usually recommended in such a case were ordered: bark, steel, elixir of vitriol, and opium, were used without any effect. His disorder

Y 4 increased;

increased ; and to it was now joined a paralytic affection of the right side, with violent convulsive shakings. Under these aggravated circumstances, recourse was had to the late Dr Butler, then ill, who ordered alum and some cordial medicine ; having first, like the other gentleman, formed and declared a fatal prognostic. At this period the gentleman first called was discharged ; and the treatment was continued by report from the apothecary to Dr Butler, who, as far as I could discover, did very little more for him ; and soon after declined any further interference. In this deplorable situation, abandoned, and consigned to certain death by his physician, Mr Boyle his apothecary suggested, that another physician should be called ; and the patient desired him to call on me.

14th September 1794, I first saw him ; and desperate indeed appeared to be his situation. Besides an immoderate discharge, though not involuntary, of a pale urine, and palsy, convulsions recurred every six or eight minutes, and affected the whole right-side, so violently, that one would imagine every
attack

attack would terminate his existence ; yet his pulse was good, soft, full, and undulatory ; thirst not immoderate : he was regular in his body, took wine and other nourishment ; and, under the desperate circumstances of his disease, his appearance was rather good.

That night I ordered a musk-draught ; and the next morning, except in the colour of the urine, which became more natural, I found no change. After having considered the matter as attentively as possible, finding that the very powerful astringents he had taken, instead of checking, seemed to exasperate his disorder, I determined to continue my exertions, to obviate spasm and convulsion, and to join mild tonics. Hence I directed the following.

R. Gumm. Kino, ʒij.

Camphoræ, ʒiss.

Pulv. aromatici, ʒj.

Flor. zinc, ʒss. f. massa in xx pil. divid.

Dentur ij. mane et nocte.

With these was joined a decoction of simarouba, with infusion of valerian and the tincture of catechu, to the extent of an ounce,
thrice

thrice a-day. For three days I could perceive no change ; he took his medicines regularly ; and I had his spine and arm well rubbed with equal parts of tincture of cantharides and camphorated spirit. The fourth day, finding my patient very little better in any respect, I began to despair, particularly as I found him averse to more medicine ; and I called on his apothecary, who I knew had great influence with him, to beg he would prevail on him to finish his medicines. This he did ; and I had the satisfaction, in the course of a week, to learn, that the symptoms began to diminish, first the diabetical, and afterwards the convulsive ; so that, when I called on him, (for ten days had elapsed since I saw him), I found nothing remaining of his disorders but a languor, and a considerable weakness in the wrist of the affected arm. This was much helped by a plaster, giving a mechanical support to the joints and tendons of the part. A generous diet in a little time removed every other consequence ; and he lived healthy and well for nine months after, taking his usual exercise, until June last, when too free an use
of

of the bottle, of which he was fond, brought on a fever, which, in that hot season, soon put a period to his existence. The day before he died, he had an immoderate discharge of urine.

When the above case occurred, I had not seen the Medical Commentaries for last year, which notices a work of Dr Richter, where the same mode of treatment is recommended in diabetes. The book itself has not fallen into my hands; nor do I find, that the Doctor has adduced any case where camphor has succeeded. From the fact I have related, and from another which soon after occurred, I have little doubt, that camphor, in many instances, may be a very useful remedy in that affection. In the month of April last, I was called to Mr C——, who had an old white swelling inflamed, which soon sphacelated; and, notwithstanding the exertions of the late Dr Butler and myself, terminated unhappily. During the progress of the mortification, and about a week before his death, the patient had such a flow of urine as demonstrated diabetes. I immediately joined
camphor

camphor with the other medicines he was taking; and can with truth say, that upon its exhibition, the interval between the discharges were considerably protracted, and the discharges much diminished.

VIII.

The History of a Case, terminating fatally, from swallowing a Plumb-stone. By Dr George Borthwick, Physician, Kilkenny.

SW—, a boy between four and five years old, was brought to me on the 28th August 1795, apparently in a state of suffocation, from having swallowed a plumb-stone about five minutes before. I immediately introduced my fore-finger into the pharynx, as far as I could reach, but discovered no extraneous body. I then made the child endeavour to swallow a mouthful of water, which seemed to go down with some difficulty, but for a few moments afterwards seemed to lessen the pain and other symptoms: They soon, however, returned with equal violence. But after the child had at intervals swallowed five or six draughts of water, he said he found himself perfectly well, the great pain in the throat, and strangulating

ting appearance of breathing, being altogether gone: On which he walked home, about ten minutes after he was brought to me.

He that day dined with a good appetite: was free from any symptom of suffering during the afternoon; took his supper as usual; had a good night; and, in the morning, was in perfect health, and breakfasted with a good appetite, having had no return of pain.

But a sudden change occurred in the forenoon: He complained of violent pain in the throat, about half way between its upper part and the sternum; the muscles of the face became frequently convulsed; and a violent cough took place. This pain was not increased on swallowing, nor did there seem to be any mechanical obstruction in the œsophagus; but after every fit of coughing, he complained much of pain; his respiration was quick and laborious; his face red, and somewhat turgid, attended with prostration of strength, and great frequency of pulse.

I thought it rather difficult to account for
such

such a sudden attack of these symptoms; yet I thought the most reasonable conjecture was, that as the stone might have produced much irritation in its passage, the present symptoms proceeded from the accession of inflammation in consequence of this irritation, and might be propagated from the œsophagus to the trachea. Under this impression, the patient was bled freely, both by venesection, and by leeches applied to the part affected. As the cough was severe, a blister was laid on the breast, and one on the back. Gentle purgatives were given, and the stools regularly examined.

During the fourth and fifth days, the symptoms were more moderate, but not removed; the patient had a tolerable appetite; and deglutition gave no pain; but on every fit of coughing, he still complained of great pain in the throat; and at this period the stone had not passed per anum. Drs Baker and Butler were now called in, who reckoned it improbable, from the history of the case, that the stone remained in the œsophagus: on the strictest examination with the fingers, externally, on the course of the
trachea

trachea and œsophagus, nothing could be discovered; nor did pressure on any part give pain.

As the antiphlogistic plan had been carried to a sufficient length, it was agreed on in consultation to lessen the irritation by the use of opiates at proper intervals, and to keep the bowels moderately open. This lessened the frequency, though not the violence, of the cough, every fit of which had a suffocating look, until a copious discharge of mucus put an end to the paroxysm.

The patient continued in this way for six or seven days, frequently appearing chearful, and having a good appetite for several hours in the day; at other times languid and disliking food, the pain in the throat, on every fit of coughing, continuing as before. As the stone had now been swallowed above ten days, and had not passed per anum, together with the circumstance of the pain in the throat still continuing, we agreed to introduce the probang, from a suspicion that the stone might be lurking in some part of the œsophagus.

The probang was cautiously introduced completely

completely into the stomach; and being withdrawn, the patient said, that the pain, so constantly felt, was now perfectly gone. He soon went to sleep, and continued free from cough for more than twenty-four hours, without the use of the opiate. This speedy amendment succeeding the use of the probang, inclined us to think, that the appearances on the day of the accident had been deceitful, and that, till now, the stone had been in the œsophagus; and as the probang seemed to have been so effectually used, we expected that the case would not be attended with any further trouble or danger.

In this we were much disappointed; for on the second day after the use of the probang, the cough and laborious respiration became as severe as formerly, with this difference, that the patient said he had no return of the pain formerly felt in the throat. The expectoration now had a more uniform appearance, and was often streaked with blood. We were obliged to use the opiates as circumstances required: The patient's appetite was in general pretty good: on

some days he was chearful, and did not cough much; on others he was languid, and distressed with coughing. In this way he continued until the 30th September, when he died suddenly and unexpectedly. During the two days before his death, he seemed to be in every respect better; slept well the night before he died; was chearful when he awaked, and took his breakfast.

His mother, wishing to have the room he was in washed out, had him carefully conveyed to her own bed in an adjoining room: As soon as he was laid down, an effort to cough came on, which seemed to meet with some obstruction; on which, his whole body became convulsed for a few seconds; and, after remaining in a state of insensibility for an hour, he expired.

On examining the body, the plumb-stone was found in the lower extremity of the trachea, where it divides. The inner membrane of the trachea was much inflamed, as were also the lungs, which adhered strongly on each side to the pleura costalis.

We

We certify that the history of this case, and appearances on dissection, are correctly stated.

KILKENNY, } Signed { JOHN BAKER, M.D.
Oct. 13. 1795. } { ED. BUTLER, M. D.

REMARKS.

IN this case, there was much singularity, from the child's continuing well until the day after the accident. There was every ground to believe, that the stone had passed the œsophagus soon after being swallowed, since, during the first day and night, there were no symptoms that could induce any suspicion of its having taken a different road.

I have stated, that the use of the probang several days subsequent to the accident produced great relief for twenty-four hours, and a removal of the pain in the throat, so constantly complained of. It is probable, that the probang, though in the œsophagus, changed the situation of the stone in the trachea to another place, where for some time it gave no irritation; but as soon as irritation was

produced, the violent cough returned. This is rendered probable, when we recollect, that in the first instance the child continued for more than twenty-four hours free from uneasiness, after the stone had fairly got into the trachea.

It would seem, that previous to the use of the probang, the stone was fixed in the trachea, about mid-way between the larynx and the sternum, where the pain was always felt; and that afterwards it was not stationary, unless from its own gravity. It is probable, that when the child was brought to me, the violent symptoms were owing to the stone being only in its passage through the larynx or glottis; for although I felt no extraneous substance, the introduction of the finger would most likely push down the epiglottis; and therefore, though the stone might be partly in the glottis, it could not have been discovered. The possibility of such an occurrence should be kept in view by practitioners, as there might be a chance of extracting the extraneous body; or, should it escape into the trachea, a knowledge of this fact

fact would govern the prognosis and future treatment with more precision.

Had it been certainly known that the stone was in the trachea, it is probable, that if bronchotomy had been performed on that part of the trachea where the pain was felt, the stone might have been extracted, and the patient saved. Although no particular spot should be pointed out by pain, yet, if there is a certainty of an extraneous body having got through the larynx, which is not likely to be thrown up by coughing, the operation might be warrantable; and, by proper forceps, the body might be laid hold of and extracted, though at some distance from the opening made in the trachea. Where any doubt may remain of the extraneous body having got into the trachea, a surer diagnosis perhaps could not be found, than the history and dissection of this case afford.

IX.

Two Cases, shewing that the Anterior Part of the Brain may sustain considerable Injury without a fatal Consequence. By Dr John Nelson Scott, Physician in the Isle of Man, and Surgeon to the Second Regiment of Royal Manx Fencibles.

CASE I.

CHARLES JOSSE, by birth a Swiss, aged twenty-seven years, of a weakly constitution and delicate frame of body, a private soldier in the second regiment of Royal Manx Fencibles, but, when the accident happened, body-servant to our Colonel, Lord Henry Murray, was riding into the town of Douglas, along the Quay, on the night of the 17th December 1795, when he was caught by the hook of one of the lateral iron lamp-supporters, which, instead of being fixed in the wall, was hanging down about two feet below the lamp-iron. The horse providentially was not going fast, when the
hook

hook struck his face, and fixed a little below the superciliary ridge of the right eye. He pulled up the horse as soon as he could ; but was already drawn half-way back out of the saddle, and was almost suspended by the hook. The horse now stood still, and he endeavoured to extricate himself, which, however, was not effected for some time, as he scarcely knew what he was about. After he was disengaged, he took out of the wound, which was bleeding profusely, what he thought was part of the iron hook, but what was certainly bone. I looked at the hook that night, and found it entire, but bloody, with small particles of flesh and bone adhering to it, from about an inch and a half from the end. He sat on horse-back for about four yards from the lamp ; then got off, left his horse, and walked alone to my father's house, a distance of about a hundred and twenty yards. On his way thither, he lost much blood, as I plainly traced the next morning. He was not long seated in the surgery, when syncope came on, during which state the hæmorrhage stopped, and did not again break out. He moaned

Z 4

much,

much, making signs that his face should not be touched.

When recovered a little, I examined the wound, which really looked shocking; one of the sides, hanging down near the eye, gave the appearance as if that organ was displaced, and leaning on the cheek. The wound was triangular, and seated immediately above the right eye, and its centre was over the middle of the superciliary ridge, which was almost all splintered. I took away with the forceps different pieces of bone, so that the ridge was entirely destroyed, except a little at the external angle. That the dura and pia mater were torn, and the brain injured, I concluded, from the easy introduction of a probe-director through the frontal sinus, from perceiving portions of substance resembling brain in and about the wound, and from the point of the groove of the director being filled with a substance also resembling brain. I was aware, in this examination, of the wholesome advice given by Parie and others, to be cautious not to mistake the matter which is secreted into the frontal sinuses for the substance of the brain,
or

or a fracture of the external table of these sinuses for one of both laminæ. I must remark, that the introduction of the director gave most exquisite pain, and brought on involuntary motions in the legs and arms; insomuch so, in the former members, that the shop-boy, who was standing on my right with sponge and water, was almost knocked down.

After all the splinters were removed, I joined the ragged edges of the wound by three stitches, and then covered it with dry lint; over this, with lint wet with tinctura benzoës composita, and then a pledget of cerate. To retain these, I used a silk pocket-handkerchief very gently drawn together. The patient was faint during the dressing, and vomited thrice: It was some considerable time before he could be removed to an inn. The pupil of the left eye was alternately contracted and dilated; that of the right much dilated. The next morning, (18th), I found the patient much better than I had any reason to expect; the pain of the wound was, and had been, but trifling, the pulse about ninety; no heat; tongue rather clammy:

clammy: He had slept four hours this morning, which, however, was attended with startings; had vomited three or four times in the night, after swallowing some toast and water. On raising the handkerchief, I perceived the lint quite moist with a kind of ferrous bloody discharge, which, by insinuating itself into the right eye, gave much uneasiness: This profuse discharge was, I imagine, partly from the frontal sinus. I removed the external lint, which came away easily; put on fresh; and over it, instead of a pledget, linen-cloths wet in a watery solution of cerussa acetata. Though the pulse did not indicate blood-letting, yet, fearful as I was of inflammation, I took away from the arm full fifteen ounces of blood, which was followed with deliquium. I prescribed a purge of five grains of calomel, and twenty-five of jalap; a mixture with nitre; a water gruel diet; a dark and cool room, and quiet in every respect.

19th. Has had a tolerable night; pain of wound, and discharge rather more than yesterday; pulse ninety three, and full; not much

much heat; tongue whitish; thirst considerable; vomited a little last night. The purgative operated briskly; had bad dreams, but no startings, in the night; pupils much dilated; vision perfect; on sitting up in bed, he complained of vertigo. Fresh lint was applied to the wound; nitrous mixture, &c. continued.

20th. No material change from yesterday. Treatment the same.

21st. Pain not much; pulse eighty-five, and pretty natural; no untoward symptoms; all the lint was removed from the wound, which looked tolerably well, discharging at the same time a well-digested pus, and rather in large quantity; none of the stitches were removed; dry lint continued, with a pledget of wax and oil, in place of the cloths, with the solution of the acetated lead: The purge, as before, was repeated to-night; the quantity of nitre lessened, as nausea was complained of after taking it.

23d. Wound goes on well; purge operated but mildly: the patient was allowed a small quantity of weak beef-tea three times a-day,
but

but not to sit up out of bed: the nitrous mixture was discontinued.

24th. The patient to-day, for the first time, sat up out of bed for about six hours, when finding a slight head-ach and vertigo, he returned into it. On cutting out the sutures, I perceived a piece of bone protruding at the lower angle of the wound, which was removed with the dissecting forceps. Healthy granulations are shooting out on all parts. Dressing and diet as before.

27th. Patient in all respects recovering; sits up every day for about six or seven hours, and walks across his chamber. The diet was this day mended.

January 3. 1795. Wound closing fast; there has been no more exfoliation: the patient was allowed to walk, with a man at his side, before the doors.

January 15th. The wound is nearly healed, the patient recovering strength; and he returned this day to the service of Lord Henry Murray.

CASE

CASE II.

As Daniel Kewley, aged about forty-five, of Black Quarter, in the parish of Concon in the Isle of Man, was returning from the fair at Douglas, on the night of March 28. 1796, he was knocked down at the end of that town, and robbed. He lay in this situation for about an hour, when he was taken up, and conveyed to a neighbouring ale-house, where I was sent for. I found the man in a perfectly senseless state, part of which I attributed to intoxication. There was a clean wound of about two inches and a half long, about one full inch above the left supercilium, and pretty exactly parallel with it. On separating the lips of the wound I found the bone cleft quite through for about two inches, but not with the least splinter, or fracture, or fissure running from it; and from the appearance and feel of it, I was certain it had been done with an instrument like to a cutlass. I easily passed the little finger of my right hand into the scull,
and

and found the dura and pia mater torn; and in bringing back the finger, turned out, on the end of it, some of the substance of the brain. I approximated the edges of the wound, put in three stitches, and dressed it as described in the first case. The patient, who had scarcely moved or groaned before, seemed as if roused by the pain from the sutures; and asked, in a low tone, for his watch and money; when we told him they were gone, he moaned greatly. He said, he had not drunk much, and that it was ale: he complained as if something was tight about his head; and said, he saw twenty candles about him: he endeavoured to make water, but could not: neither could he vomit, though he made many efforts to that effect.

29th. This morning, two or three soldiers were confined on suspicion; and the end of a sword was produced, which had been picked up early in the morning, near the place where the deed was done; and in the evening, the handle of a sword, corresponding with the other part, was brought to light by a serjeant. The sword was a heavy

heavy cut-and thrust one; and about the part where it was broken, the edge was much notched. I found the patient out of bed, expressing a wish to go home, (a distance of about three miles); and he had been drinking some ale. His eyes looked heavy; an erysipelatous shade was over his whole face: he had vomited often that morning; was hot and restless; his pulse quick, frequent, and hard; tongue white, with much thirst; made water freely; and complained of much pain in his head, particularly above the eyes; the lips of the wound looked flabby, the lint moist with a bloody serum. I removed the dressings; and would have applied dry lint with a saturnine cataplasm; but the patient would not allow of the latter, therefore a pledget of wax and oil was used. Neither bleeding, purging, nor, in short, any one thing more than dressing the wound, was submitted to; partly from the patient's own inclination, but particularly owing to his wife, who opposed whatever she thought unnecessary.

30th. The patient was prevented from going home by some friends; he had stopped
all

all night in a public house, and confessed, that last night and this morning he had taken some hot ale with pepper, as he said, "to put away the cold in his back, and the puking." Nothing was this day submitted to, though he was very feverish; the head indeed was dressed, but he would not allow the futures to be cut out, the putting in of which had done more harm than good; the discharge was profuse, and ill digested. This evening the man walked home.

31st. The patient walked to town, and had his head dressed: he complained much of pain; said, he had not slept at all in the night, was thirsty, had no appetite, pulse about ninety, and hard; that he had taken no ale; and that a little boiled bread and milk, on which he supped last night, was vomited up. I intreated him much to stay in town, to be bled, &c. but to no purpose. He had no stool since the accident; but, after much persuasion, he took two ounces of purging salts with him to the country.

April 1. He walked to town, to get his head dressed; was much in the same state as yesterday; said, he had taken the salts, which

which had purged him ; but, that every step he went to-day, gave him pain in his head. My father examined the patient with me to-day : and he perfectly coincided as to the extent of the injury. I got leave, and cut out the stitches: The patient would hear of nothing to-day ; but said, that if to-morrow he was not better, he would be bled.

2d. Business called me out of town, so that I did not see the man to-day ; he consented, however, to lose blood, which was done by my father *ad deliquium*, and to take some pills of calomel and jalap ; he promised also to refrain from ale. He staid in town to-night, owning that he was not able to walk home, " his head was so sick."

3d. The patient was rather better than worse ; had still vomiting at times ; was thirsty, with a foul tongue ; no appetite ; skin rather hot ; pulse about eighty-four, and full ; belly loose ; wound flabby, and the edges of the bone of a pearly white ; discharge sanguinous and fetid. I wished him to take the saline mixture, and to lose more blood ; both of which he very flatly refused. Wound continued to be dressed with dry lint, and

a wax and oil pledget. He remained in town to-night.

6th. Finding himself a little better, and that motion did not so much affect his head, after getting it dressed, he walked home to the country: the edges looked more natural, a yellow tint, which was in the face, almost gone; no vomiting; appetite but bad; pulse seventy-eight, neither full nor hard.

8th. Came to town, and was dressed; wound looking rather better; pain of head less; pulse pretty natural; appetite improving. From this time till the 20th, I saw the patient but twice, when I left the island with my regiment. The man then became my father's patient; under whose care he was for about seven weeks, occasionally visiting our house, when the external wound was closed. But the patient went to his work as a farmer, soon after, or about the middle of May.

X.

History of a Case, in which Singular Symptoms occurred from the swallowing of an Iron Nail, which remained in the Stomach for about fifteen Months. By Dr Philip Roberts Wilson, Physician at Barnet.

A GIRL in the fourth year of her age, in the month of February 1793, by accident swallowed an iron nail; nearly two inches in length. In its passage, it wounded the œsophagus, which bled freely; and a soreness was felt there for some time. In about a fortnight, a trifling cough supervened, with thirst and general fever. This fever had remissions and exacerbations; but the cough and thirst became incessant, with occasional sickness, and pain in the stomach and bowels. In the winter, the child began to expectorate much phlegm, particularly in the morning. This was invariably attended with distressing pain in the region of the stomach. Her appetite, however, during

the remissions of fever, was somewhat improved; and she gradually recruited her strength a little. But during the fifteen months for which the nail was present in her stomach, her growth was almost entirely suspended.

On the 5th of May 1794, I was consulted respecting the complaints of this child, on the supposition that she had worms. Not knowing any thing of the former circumstances, I was ready to ascribe the above symptoms to the presence of worms; and I prescribed medicines with this view of the case. The child at this time appeared to be in the last stage of a decline, having regular night-sweats and hectic-fever.

On the 7th of May, at noon, the child was seized with retching; and after throwing up much blood with some violence, the nail came up, enveloped in blood and mucus. It was covered with a considerable quantity of rust, particularly about the point. After the expulsion of the nail, every bad symptom gradually disappeared; and the child has since remained in a state of perfect health.

S E C T.

S E C T. III.

M E D I C A L N E W S.

THE following interesting article of medical news has not probably fallen into the hands of many of our readers; and to all of them it will, we doubt not, appear so singular as to deserve particular attention. If the observations made by Mr Scott shall be confirmed by the experience of others, the nitric acid will afford a most valuable remedy for combating diseases, against which the remedies commonly employed are often attended with so much inconvenience.

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LETTER

LETTER TO SIR JOSEPH BANKS.

Bombay, 6th May 1796.

I EMBRACE an opportunity of sending you a short account, that I have just published, of the effects of the nitrous acid on the human body. As I have long made use of this active agent in a great variety of cases, I am persuaded that I have not been deceiving myself. Another paper will shortly be published on this subject, which I shall also take the liberty of sending you. The acid that I now employ for internal use, is procured from a mixture of three parts of alum, and one of nitre. I have no objection to my name being used on this subject; for I really believe, that such a remedy would be highly useful to mankind, if judiciously employed, especially in warm climates, where a tendency to animalisation gives a particular character to all our diseases.

I am, &c.

H. SCOTT.

ACCOUNT

ACCOUNT OF THE EFFECTS OF THE NITROUS ACID ON THE HUMAN BODY. EXTRACTED FROM THE BOMBAY COURIER, APRIL 30. 1796.

THE following attempt to extend a little the limits of the healing art, is inscribed as a tribute of respect to the character of Dr James Anderson, Physician-general at Madras.

In August 1793, I employed myself for some time in making experiments on the bile, a secretion that is connected in a great degree with many of the diseases of this country. I wished to unite some of the calces of mercury with the resinous matter of that fluid; for I imagined that I might discover some chemical affinity between those substances, and be able to see by what means this metal is so singularly qualified for removing obstructions * of the liver.

* I have used the word *obstruction* to express the chronic disease of the liver, so common in this country.

I had collected, for experiment, a quantity of the resinous base of the bile of a buffalo, which I had separated very carefully from its soda, and from the lymphatic matter with which it is united. I had put a dram or more of this substance into a vessel, to which I added about half of the same weight of the red calx of mercury, with ten or twelve ounces of water. On heating the whole together, I was surprised to observe, that the base of the bile became remarkably more soluble in the water. I cannot say that I observed the red colour of the calx in any great degree altered; but it is known to retain its brilliancy with different quantities of oxygene *. I filtrated this bitter solution, which deposited the base of the bile, as the water evaporated in the ordinary heat of the atmosphere. I shall at another time consider this subject with a little more attention.

M. Fourcroy has observed, that water dissolves a small portion of the base of the bile. In this experiment, a considerably larger

* See Experiments by Van Mons on the Red Oxide of Mercury.

quantity was taken up than water could have dissolved, which I attribute to the oxygenation of the resin by the pure air of the calx. I had some reason to think, that obstructions of the liver do often consist of a deposition of the resin of the bile, which, I now began to suppose, might be rendered soluble in the animal fluids, by the pure air of the mercurial preparations that are given for the disease. I have seen livers, on the dissection of the dead, of a pearl colour, and much enlarged, which, I suspect, were composed in a good measure of this resinous matter. I have even found it, from accurate trials, in a considerable quantity, in the substance of a liver that was apparently without disease. Is the well-known effect of new grass, in dissolving the biliary calculi of the gall-bladder, that cattle get in the winter-time, to be accounted for from the pure air of green and ascescent vegetables?

It is acknowledged, that all the calces of mercury which are used in medicine, contain a quantity of pure air; but I know of no direct experiment having been hitherto made, to prove that the effect of mercury in diseases
of

of the liver, or in other maladies, depends on this principle, and not on the metal itself. The experiments that I had made on the base of the bile, inclined me to wish to take myself a quantity of pure air, united to some substance for which it has no great attraction. I reflected on the different ways that are employed by chemists to oxygenate inanimate matter; for I believed, that the same chemical attractions would produce a similar effect in the living body, although they might be disturbed in their operation by the vitality of the machine, and the variety of the principles of which it is composed.

The nitric acid, as may be supposed, was one of the first substances that occurred to me as fit for my purpose; for it is known to contain about four parts of vital air, united to one of azote, with a certain proportion of water. These principles can be separated from each other by the intervention of many other bodies, as chemists find every day in their operations. I was led, besides, to give a preference to the nitric acid, from observing, that it dissolves very completely
the

the resinous base of the bile. I have since found, that the celebrated M. Fourcroy had made the same observation before me.

Before I began to take the nitric acid, I consulted all the accounts of it, that I could procure, with a view of learning something of its effects on the human body. The result of this inquiry was but little satisfactory; for I only found that it had been given as a diuretic, in very insignificant quantities, or recommended in general terms, where the mineral acids are supposed to be useful. I did not think myself warranted to administer it to others from such imperfect information; but I resolved to take it myself; and I thought I was particularly qualified to determine its effects, as I had reason, for a long time before, to complain of my liver.

In September 1793, I began to take the nitric acid. I mixed about a dram of the strongest I could procure, with a sufficient quantity of water; and I was happy to find, that I could finish that quantity in the course of a few hours, without any disagreeable effects

effects from it. The following is the journal that I kept of myself at the time.

11th September, 1st day. Took at different times about a dram of strong nitric acid, diluted with water. Soon after drinking it, I feel a sense of a warmth in my stomach and chest; but find no disagreeable sensation from it, nor any other material effect.

2d. I have taken to-day a considerable quantity of acid, diluted with water, as much as I could easily drink during the forenoon.

3d. I have continued the acid. I feel my gums affected from it, and they are somewhat red, and enlarged between the teeth. I slept ill; but could lie for a length of time on my left side, which, from some disease in my liver, had not been the case for many months before. I perceive a pain in the back of my head, resembling what I have commonly felt when taking mercury.

4th. My gums are a little tender. I continue the acid as before. I still find a pain in my head, and about my jaws, like what
arises

arises from mercury. I perceive no symptoms of my liver-complaint.

5th. I have taken the acid; and always feel an agreeable sense of heat after drinking it. I spit more than usual.

6th. I continue the acid. I observe my mouth sorer to-day, and spit more.

7th. I think I am now sufficiently oxygenated. I feel my mouth so troublesome, that I shall take no more acid.

From this time my mouth got gradually well, and I found my health considerably improved.

I now began to suppose, that I had discovered a remedy for that chronic disease of the liver, which is much more common here than the acute hepatitis. I thought that it might in some respect be preferable to mercury, as it did not appear to produce the inconveniences that arise from the use of that metal. I have given it since to a number of people, who had taken mercury for hepatic obstructions, without being effectually cured; and I have found it in many cases produce the most agreeable consequences. If it were proper on this occasion to be more particular in
detailing

detailing the cases in which I have administered this remedy, I believe I could make it very probable that I have not been deceiving myself. In the acute hepatitis, I have hardly employed it; for where the life of a person is in immediate danger, I have thought it my duty to make use of remedies that are established.

I have, with the best effect, oxygenated several people with the nitric acid, who were much reduced by tedious intermittents. That kind of fever is often connected with a diseased liver or spleen. In consequence, I think, of this remedy, I have seen them recover their natural colour from a leaden or bilious hue, and regain their strength from a long continued weakness. I believe, if given in a sufficient quantity, it would be very useful in the fever of this country, which has been called bilious, or nervous, or putrid, and for which mercury appears to be a specific.

I have met with two instances only in this country of diabetes. They were both natives, and in the decline of life. I cured them both by mercury, after many other remedies

medies had been tried. One of these men had a relapse of his disease, which I removed a second time with the nitric acid. I thought this a satisfactory correspondence in the effects of the two remedies. May they not both be useful in that disease?

The great resemblance that I perceived in myself, between the effects of mercury and of the nitric acid, made me anxious to know if the acid would remove the various symptoms of syphilis. In September 1793, it was administered, at my desire, by my friend Mr Anderson, surgeon of the 77th regiment, to a person who had a head-ach that came on every night, and which had long been suspected to arise from lues. He had taken several courses of mercury on this account, which carried away all the uneasy symptoms; but they as constantly returned after a certain period. On using the acid for about a fortnight, he got perfectly free from his head-ach, and he remained very well for a few months, as was usual to him after mercury.

I have now had a pretty extensive experience of the good effects of the nitric acid
in

in syphilis; and I have reason to believe, that it is not in general less effectual, than mercury in removing that disease in all its forms, and in every stage of its continuance. I think that in some cases it has even superior powers; for I have succeeded completely with the acid, when mercury, administered both in this country and in Europe for years together, had failed of success. We appear to be able to carry the degree of oxygenation of the body to a greater length by means of the nitric acid, and to continue it longer than we can do by mercury.

A mass of mercury, [in the circulation, produces many disagreeable effects, that make it often necessary to give over its use before it has answered its intention: but the nitric acid may be taken a long time without any material injury to the health; nor are its effects on the mouth, in producing inflammation, and a flow of saliva, so disagreeable as from mercury.

A man could hardly offer to his species a greater blessing than a new remedy against any of the host of diseases that assail us:
but

but the reputation of specifics, with the exception of a few instances, has arisen only from the weakness of the human mind. Am I too deceiving myself, and attempting to lead others into error?

As the acid that I distil is not strong, and is of unequal strength at different times, I am regulated chiefly by the taste in giving it. I put half or three fourths of a Madeira glassful of it in two pints of water, or I make two pints of water as acid as it can well be drunk. This quantity is finished every twenty-four hours, taking about a Madeira glassful only at a time.

I have sometimes removed syphilitic symptoms with the acid in five days; more commonly, I think, they give way in a fortnight; but sometimes, though seldom, they continue for twenty days without any apparent relief. I must confess, that in some cases I have failed altogether; but in those cases, mercury had long been given to little purpose; the bones were highly diseased, and the habit probably of a peculiar kind. I have cured syphilis with the acid, under a variety of forms, where no other remedy had ever been

employed, and for above two years I have seen no relapse in those cases. I have administered it against the primary symptoms of the disease, and I have given it for exostoses, for carious bones, for nocturnal pains, for eruptions and ulcers of the skin, and for all the train of misery that is attendant on lues. I have the pleasure to see, that several of my friends have begun to use the nitric acid in syphilis, and in other diseases. An account of their experience, which every body will esteem the most respectable authority, will make the subject of a future paper.

I hope this slight account will induce medical practitioners to try the effect of the nitric acid in syphilis, a disease which, in this climate, is so frequently the disgrace of their art. Too often the miserable wretch is but worn down sooner by the very remedies that are called in for his relief.

*Quæsitæque nocent artes; cessere magistri,
Phyllirides Chiron, Amythaoniusque Melampus.*

VIRG. GEORG. III.

MR

* * * *

MR JOHN KENNEDY, Surgeon to the third battalion of native infantry, in the service of the Honourable East-India Company, at Bengal, in a letter to Dr Duncan, dated at Chunar Gurr, the 25th April 1795, gives the following account of a febrifuge-bark, which he has lately employed.

ON my return to Bengal, after the last Myfore war, I accidentally fell in with Dr Roxburgh at Samulcottah. From him I obtained a large quantity of the febrifuge-bark, which he has discovered in the hilly parts of the Carnatic. I used it with much success in a great number of cases; and being far distant from the source of supply, I was induced to commence a set of experiments on the bark of the toon-tree; and I found, from comparifon, that it possessed qualities approximating to Dr Roxburgh's bark, although the bitter was not powerful. I have used it in common for these last twenty months, both in the form of powder, and

of extract in their simple state, and likewise of extract combined with the bitter nut. From all these different forms, I have found great advantage in the cure of fevers, and of different kinds of ulcers, whether venereal or of the simple vitiated kind. To foul ulcers, where the fetor was intolerable, and where the discharge was of a sanies nature, a little of the powder sprinkled on the parts, and dressings applied of wax, oil, and the powder mixed, in a few days made them put on a very different aspect. Fine healthy granulations, and a well-digested pus, was the result of all the trials I have yet made.

I use the extract under the form of pills, commonly joined with Khutt Kullegie nut, a very pure and elegant bitter. One ounce of this extract, and two drams of the nut, I have divided into 120 pills, and I have found this formula very ready and portable for giving a full dose of the medicine. I seldom exceed nine pills in the day, that is, three every fourth hour. In some obstinate cases, however, I have given a dozen. I have taken the liberty of sending you some pounds of the bark, and two pots of the
extract.

extract. And I have also sent along with it a bag of the nut Khutt Kullegie, or Kuring, the country-name. The outer crust is rough and prickly, and I have taken it off. I hope they may reach you in good preservation. I subjoin a letter which I received some time ago from Dr Roxburgh, who is now settled at the Botanical garden, Calcutta.

DEAR SIR,

I HAVE received yours of the 1st instant, with some of the powdered bark, and extract of the toon-tree. Your observations thereon gave me much satisfaction, for the following reasons.

On my arrival in Bengal, at the close of the last year, for the first time I found the toon-tree. There are many of them in the Botanic garden. On observing that it was a non-descript, and a new species of the genus Swietenia, (of which genus the tree which produces the bark you got from me at Samulcottah is another new species), I was induced to make some few experiments

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on its bark ; and I found it was possessed of sensible qualities nearly equal to mine. Indeed, it possesses rather more astringency, but less bitterness : It may therefore, as you observe, be improved by the addition of a small portion of the Khut-Kullegie, which I believe is a very pure bitter.

From what I have said, you will observe, that the toon, and the tree which produces my febrifuge-bark, are not the same, but different species of the same genus. I inclose you some of my bark, *Swietenia febrifuga*, the better to enable you to go on with your experiments, the result of which I will thank you to make me acquainted with. My experiments on the bark of the *Swietenia febrifuga* will very likely be published in the fourth volume of the Asiatic Researches, which is now in the press. If you will give me leave, I will add a copy of your letter to a few short observations on the toon-bark ; or probably you will wish to say something more upon the subject.

W. ROXBURGH.

CALCUTTA, 10th August 1794.

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I need not add, that it will afford me much satisfaction to hear, that the toon-tree-bark, upon trial in Europe, may correspond with the account I have given of its medical virtues.

J. KENNEDY.

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WE are happy to find, that considerable progress has been made in the pneumatic institution projected by Dr Beddoes at Bristol. Several hundred pounds more have lately been subscribed ; and we are informed, on good authority, that the proposer has now little doubt but that it will soon be set on foot in a proper way. Still, however, fresh contributions are desirable, as it would be much to be lamented, if an attempt to solve the problem of the action of differently modified atmospheres on the human body, in different morbid conditions, should be left imperfect for want of an inconsiderable sum of money.

Dr Beddoes, we are told, soon intends to circulate the outlines of a plan for the exe-

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cution of this design. In that paper, he will solicit the suggestions of medical and philosophical men, in order that, by a comparison of ideas, he may be enabled to dispose of the contributions to the greatest advantage, for promoting the knowledge of physiology and pathology.

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DR WITHERING, of Birmingham, in a letter to Dr Duncan, has the following observations with respect to pneumatic medicine. "With us, pneumatic medicine is advancing; and I think enough has been done to authorise me to say, that a cure of consumption is yet to be sought for. Hydrocarbonate and oxygene are the two airs that have mostly been used; and these should be diluted with eighteen or twenty times their bulk of atmospheric air. The former weakens the stroke of the pulse, occasions vertigo, and sometimes excites nausea. It produces a disposition to sleep, abates the cough, and eases the respiration in some asthmatic affections; but in active hemoptoe, it affects a
cure

cure more speedily, and more pleasantly, than I have seen done by any other means. Oxygene, on the contrary, excites the action of the arterial system, warms the extremities, and seems to invigorate the vital principle, without exhausting it. From these last circumstances, you will at once conceive it applicable to a very extensive class of diseases. I have lately used it with advantage in two cases of melancholy; and I have seen it remove the paralyfis of lead, which had been treated to little purpose, by the other more usual means."

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DR FRANCIS RIGBY BRODBELT, of Jamaica, in a letter to Dr Duncan, gives him the following account of some observations and experiments which he has made on the gas contained in the air-bladder of the sword-fish.

"I will relate to you a few experiments which I made during my passage to this island.

island. I had often wished to determine what is the nature of the gas which is contained in the air-bladder of fish; and I was perhaps prevented from finding it out, by hearing Dr Monro, in his lectures, say, it was natural to suppose it fixed air. However, although this authority prevented me from putting it to the test of experiment for some time, yet one day, on our voyage, having caught a very large sword-fish, I collected the contents of all the air-bladders, for in that fish the bladder appeared divided into innumerable cells, which had no communication with each other. They afforded so much air, that I collected a quart-bottleful. My surprise was great to find that the gas contained was oxygene. A flame was brightened, an ignited stick was made to rekindle; and it was so strong and pure, that the common experiment of a piece of steel-wire, heated and put into it, succeeded well, and threw out a most vivid light when melting. I have committed to writing my thoughts on this subject at greater length; and I wish to infer, that this pure air is to
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serve the purposes of life, when the animal is far below the surface of the water."

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MR GEORGE KELLIE, surgeon to his Majesty's ship the Iris, in a letter to his father, Mr Kellie surgeon in Leith, has communicated to him the following observations on the anatomy of the shark.

The uses of comparative anatomy are so universally allowed, that I shall make no apology to you for having dedicated some time to dissections of this kind, when subjects offered, or for troubling you with the detail of the appearances I observed in the shark, the primæ viæ of which I judge to be both singular and unknown. Previous, however, to entering on this description, it will be necessary to remark, that whenever I have occasion to mention the dimensions of any particular part, I take the description from one three feet and a half in length.

The stomach differs little in general from that of other fishes; it is capacious, strong,
and

and muscular, and internally lined with a fine villous coat. Its lower end is gradually produced into a form somewhat resembling the head of an alembic; while the duodenum, or small gut, forms its retorted neck, or rather resembles the figure and the proportion of the ductus cysticus to the gall-bladder. The pylorus, or opening of the stomach into the small gut, is extremely small, easily admitting a common probe, but with difficulty a catheter. It is not formed with any valve, doubling, or sphincter; its minuteness indeed seems to render any mechanism of that kind unnecessary. Near it we observe a number of blind lacunæ, in which, as well as in the pylorus itself, I have always found a number of small white worms, resembling threads. The division of the intestinal canal into various portions, arbitrarily assumed in perhaps all other animals, is determined by nature in the shark. For, when viewed in situ, the stomach and great gut appear as two large receptacles connected by a slender tubulated gut.

The small intestine is about eight inches
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in length, and only the third part of an inch in diameter. Its texture is so firm and elastic, and its coats so thick and tendinous, that, when laid hold of, it feels like a solid cord, or tendinous rope. The capacity of the gut, throughout its whole length, is so small, that a common catheter completely fills it; nor could it admit an instrument of a larger size. From the great strength, thickness, and elasticity of its coats, when transversely cut, the passage preserved its circular appearance; and its tranverse diameter measured about three tenths of an inch. When laid open longitudinally from one end to the other, each longitudinal section preserved its half-cavity entire. The internal coat is uniform and smooth, without the least appearance of duplicature or valve. The small intestine proceeds from the stomach downwards, without any convolution, and is attached by a transparent mesentery to the spine. Before its termination in the great gut, it swells, and produces a firm cartilaginous bulb. The entrance of the small into the great intestine, is not by a gradual dilatation of the capacity of the former, but
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it abruptly opens by an orifice similar to the pylorus. This opening, too, is surrounded with glandular lacunæ, in which small white worms were always found.

The great gut is about thirteen inches in length, is large and capacious, and runs in nearly a straight direction downwards to its termination at the anus, between the ventral fins. Its coats are thinner, but more muscular, than those of the small gut, and are capable of great dilatation. When no distending force is applied, the diameter of the gut is a little more than an inch; but it was yet capable, by a little force, of admitting my whole hand. When the great intestine is laid hold of, a very considerable thickness, seeming as if it were a continuation of the small gut, is distinctly felt running through its whole length. In the first dissection I made, I was therefore surprised, on introducing a probe from the small into the large gut, when I discovered it had not passed into this, which I supposed to be its real continuation. But, on laying open the great gut, I immediately discovered the remarkable structure which had deceived me.

I found

I found within the gut a very deep process, running longitudinally through its whole length, rolled up in such a manner, that when felt through the coats of the gut, it resembled in firmness and size the small intestine. On cutting the gut transversely, this longitudinal process was seen rolled round itself, and filling, as it were, the intestinal cavity. On inverting the intestines, I clearly perceived this longitudinal doubling proceeding from the back-part of the gut. On drawing out the longitudinal doubling, or process, the whole very exactly resembled the natural appearance of the gut and mesentery of a quadruped; and as the mesentery is a production of the external or peritoneal coat, so this process appears evidently a production or doubling of the vilous coat of the intestines. At the middle of the intestines, this process measures about seven inches in breadth; but gradually decreases as it approaches the extremities; so that, when spread out, it resembles in form an elliptic arch. The floating edge of the process contains, in its duplicature, two large vascular trunks, which send a variety of ramifications

fications to the process and gut. The process itself is usually soft and villous, and so plentifully supplied with blood-vessels, that it seems covered with red points.

The ravenous disposition of the shark argues an exceedingly quick and powerful digestion. But though the stomach be very large and capacious, the alimentary canal is very short, and furnished neither with *valvulæ conniventes*, like quadrupeds, nor *appendices cœcæ*, like the greater number of fishes : but, instead of these, the shark is furnished with an intestine proceeding from the stomach, of such small capacity, that no matter can pass through it, but what is thoroughly digested, and almost fluid. Thus digested matter is only conveyed from the stomach into the large gut, which, though of considerable capacity, is yet, in comparison of the size of the animal, very short : and, as it is unfurnished with valves, the digested matter which it receives would have passed too quickly through the body, had not Nature provided otherwise. The longitudinal process, of great extent, rolled and doubled round itself, almost filling the gut, not only
serves

serves every purpose of the *valvulæ conniventes*, but answers the purpose of a larger gut, or one furnished with appendices; for by this the descent of its contents is impeded, at the same time that they are exposed to a very large absorbing surface.

To conclude: On dissecting the shark, the structure of the *primæ viæ* appeared to me extremely curious, and a striking deviation from the usual plans of nature. The common dog-fish of the north seas so exactly resembles the shark, in its external appearance and voracious appetite, that I suspected the fabric of the intestines would also have resembled the shark's. I have lately, however, dissected a dog-fish, and find I was mistaken in my conjecture. Its great gut is crowded with very large *valvulæ conniventes*.

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DR RICHARD PEARSON, of Birmingham, has transmitted to many of his friends the following circular letter, dated July 1. 1796, respecting a particular practice in phthisis

VOL. I.

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pulmonalis,

pulmonalis, which, he thinks, he has employed with great benefit.

Having, for the last two years, prescribed the vapour of vitriolic æther to patients labouring under phthisis pulmonalis, and having, both in hospital and private practice, experienced the best effects from its use in this frequent and formidable disease, I am preparing to lay before the public a report of the cases in which it has been given, accompanied with remarks on some other remedies that may be employed with advantage in the cure of consumptions. Being desirous, in the recommendation of a new medicine, to have my own evidence supported by the concurrent testimonies of other practitioners, I take the liberty of calling your attention to this subject, and of submitting to your notice my method of using this application, which is simply this: I direct the patient to pour one or two tea-spoonfuls of pure vitriolic æther, or of æther impregnated with cicuta in the manner hereafter described, into a tea-cup or wine-glass, and afterwards to hold the same up to the mouth,

mouth, and draw in the vapour that arises from it with the breath, until the æther is evaporated. This is repeated three, four, or five times, in the course of a day, for a month or six weeks, more or less according to circumstances. The first effects of this application are, an agreeable sensation of coolness in the chest, an abatement of the dyspnoea and cough, and, after ten minutes or a quarter of an hour, easier expectoration. The ultimate effects, provided other proper measures be not neglected, for this is not to supersede the use of other medicines, but to be employed in conjunction with them, are, a removal of the local inflammation, a cleansing and healing of the ulcerated lungs, and a suppression of the hectic fever. To assert that all these beneficial consequences will flow from its application in every species and degree of phthisis pulmonalis, would be adopting the language of quacks, and insulting the understanding of every one experienced in the profession: But to say that some of these good effects are likely to result from its use in most instances, and most of them in a great number of instances, is as-

fering only what an experience of two years, in a situation where the opportunities of making trial of it have been very frequent, has fully confirmed.

The salutary operation of the æther applied to the lungs in the form of vapour, I have found to be greatly promoted by several volatile substances that are soluble in it, but by none more so than the cicuta. By macerating a sufficient quantity of the dried leaves of this plant in æther, for the space of three or four days, or at most a week, and occasionally shaking them together, a very saturated tincture is obtained, which may be inhaled in the same manner, and in the same doses, as the pure æther. My proportions are a scruple or half a dram of the powdered leaves to every ounce of the æther. The narcotic particles of the cicuta, conveyed in this manner, along with the æther, to the diseased lungs, act as a topical application with the best effect: hence æther, thus impregnated, succeeds in most instances better than when it is employed alone. The only unpleasant circumstance attending the inhalation of this æthereal tincture of cicuta, is

a slight degree of sickness and giddiness, which, however, soon got off.

It cannot be expected that I should here point out every symptom, or set of symptoms, which indicate or forbid the use of this application: I shall only remark, that it appears to be best suited to the florid, or what is commonly termed the scrophulous consumption. Where the pulmonic affection is complicated with the mesenteric obstruction, or diseases of the other viscera, or a dropical condition, it affords but transitory relief; and in the very last stage of the disorder, the proper time of using it is past.

Should you be induced, Sir, by this address, to make trial of the vapour of vitriolic æther, impregnated with cicuta, in phthysical cases, I shall be glad to be favoured with your remarks and observations upon it, whether in its favour or not. All communications on this subject are requested to be sent before the 1st of January next, as after that time the treatise will be printed.

RICHARD PEARSON, M. D.

BIRMINGHAM, *July* 1. 1796.

C c 3

DR

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DR JAMES HAMILTON junior, of Edinburgh, who lately published the first volume of a work, entitled, *Observations on the Seats and Causes of Diseases*, illustrated by the Dissections of the late Professor Morgagni of Padua, has made considerable progress in preparing for the press the second volume of this interesting publication. Although a considerable part of this Work, as may be inferred from the title-page, is taken from the celebrated Morgagni's truly valuable Work, *De Causis et Sedibus Morborum*; yet it can neither be considered as a translation nor an abridgement. His chief objects are, as will appear from the first volume, which is already published, to new-arrange the whole, dividing diseases, as had formerly been done by Macbride, into the four classes of universal, local, sexual, and infantile; to retain only those facts which seem established on unequivocal authority; to prefix to each collection of cases a view of the general symptoms and seat of the disease;

disease; and to add observations on the causes, and remarks on the histories detailed. In the first volume, conducted upon this plan, Dr Hamilton has already treated of two great subdivisions of the first class, or universal diseases, viz. fevers and inflammations; and in another volume he hopes to complete the remainder of the universal diseases; after which he will continue to publish, in a similar manner, the local, sexual, and infantile diseases. If the remainder of this Work shall continue to be executed with the same accuracy and discernment which are displayed in the first volume, it can hardly fail strongly to interest the attention, and to prove a Work of great utility, especially if to the whole be added a proper index, exhibiting a view of the several morbid appearances of the proper organs.

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A WORK entitled, *Medicina Nautica*, An essay on the diseases of seamen, which will comprehend an account of the state of health,

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for

for three years, in Earl Howe's fleet, written by Dr Trotter, physician to the fleet, is now in the press, and will soon appear. Great improvements having lately taken place in the medical establishment of the navy, and in the royal hospitals, from the suggestion of the physician of the fleet, he has deemed it necessary to publish the present Work, that their utility may be known. We understand that this volume will be particularly valuable for numerous facts on the subject of contagion, as the opportunities of the author for collecting his evidence have been uncommonly great.

* * * *

DR TYTLER has circulated proposals for publishing, by subscription, *Pædotrophia*, or the art of rearing and nursing children, a poem, in three books, translated from the Latin of Scævole de St Marthe, treasurer of France, at Poitiers; with the life of the author, from the French of Michel and Nicéron, his epitaph, and his dedication of this poem to Henry III. of France.

MR

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MR GEORGE KELLIE, surgeon to his Majesty's ship the Iris, who has already communicated to the public, in the 19th volume of the Medical Commentaries, some interesting facts, respecting the effects of compression by the Tourniquet, in stopping the cold fit of intermittents, has since that continued to bestow particular attention to this subject: and an account of his experiments, and observations respecting it, will probably soon be published.

* * * *

MR JOHN BELL, surgeon in Edinburgh, who some time ago published a volume on the anatomy of the bones, muscles, and joints, has now made such progress in the prosecution of this Work, that a second volume, containing the anatomy of the heart and blood-vessels, will be published in a short time.

DR

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DR GIRTANNER has long employed himself in analysing some bodies hitherto considered as simple, and thinks he has obtained the following results.

1. Phosphorus consists of azote and hydrogene, like ammonia.
2. The fixed alkalis consist of carbone and azote, soda containing more azote, potash more carbone.
3. Sulphur consists of carbone and hydrogene.
4. The fluoric acid has a compound, probably a triple base.
5. Arsenic seems to consist of carbone, azote, and hydrogene.

The proofs of these assertions are soon to be published at length in Gren's Journal of Natural Philosophy.

* * * *

IN order to render the pathology of the bones more perfect, Professor Arneman proposes

poses to publish a series of elegant plates, to illustrate the changes which bones undergo from internal causes. His own extensive collection, and the examination of those of others, supply him with the materials for executing such a Work. He will afterwards explain the diseases, with reference to the practical treatment, in a separate publication. The first plates are already engraved, and serve to illustrate the mollities ossium. Representations of bones diseased from lues, gout, rickets, scrophula, scurvy, and the itch, will be successively published. To render this Work as perfect as possible, Dr Arneman invites those who possess diseased bones, which differ from such as are already engraved or described, to send an account of them, and to assist him in his undertaking.

* * * *

THE physical class of the Royal Academy of Sciences at Berlin, has proposed the following questions. 1. Of what nature are the earthy constituents which chemical analysis

lysis discovers in the different kinds of grain of this country? 2. Are these taken up in the state in which they are found? or are they produced by the power of life, and the action of the organs of vegetation?

The Royal Academy wishes, that those who undertake the investigation of these important questions would ground their investigations upon experiments which may determine with certainty the component parts of the soil in which the grain grew, and lead to a comparison of these with the fixed constituents of the grain itself. Answers may be sent till the 1st of June 1797; and in the following month of September, a gold medal of the value of fifty ducats, will be given for the best Essay.

* * * *

THE Harveian Society of Edinburgh have proposed for five successive years, prize-questions, respecting the effects of different modes of bathing.

For 1796, concerning the cold bath.

For 1797, concerning the tepid bath.

For

For 1798, concerning the hot bath.

For 1799, concerning the vapour-bath.

And for 1800, concerning the medicated vapour-bath.

Differtations on these subjects must be transmitted to Dr Duncan senior, physician, or to Mr John Bell, surgeon in Edinburgh, on or before the 31st of December of the year for which the question is proposed.

* * * *

AMONG the premiums given by the Society in London for the encouragement of arts, manufactures, and commerce, for the year 1796, is one of fifty guineas to Mr John Ball of Williton, for the discovery of his method of preparing English opium, or opium prepared from poppies reared in England. This opium is attested by several physicians who have made trial of it, and whose letters are inserted, to be at least equal in efficacy, in the same dose, to foreign opium. Mr Ball, in one of his letters in the correspondence with the Society on this subject, asserts, that he has no doubt that
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the opium which he prepares from poppies growing in his own garden, may be afforded at half the price of the foreign opium: for that, in a few years, we shall be able to render it from five to eight shillings per pound, without the least adulteration. And I am of opinion, says he, that the more barren ground, which in some places lets at from two to ten shillings an acre, will, with very little expence, answer for the growth of poppies. I shall take care, this summer, to find out whether any particular sort or colour produce the most opium.

We shall give the letter entire, which contains the method of preparing the English opium.

MY LORDS AND GENTLEMEN,

By your secretary, Mr More, I received your resolutions respecting your purchasing from me the mode of my preparing the sample of opium, which I took the liberty of sending to you, and at the same time to beg the favour of your having a sufficient trial of its properties, which I find you have been so obliging as to have done, and
likewise

likewise to have granted me the fifty guineas, as purchase of my method of preparing opium, for which you have my sincere thanks. I am exceedingly pleased to find that it was thought worthy of the notice of so honourable and respectable a society: and I am satisfied there can be no other mode of preparing or collecting the pure and genuine opium, than what follows.

Nothing can be more simple, or attended with less expence, than the making or extracting the pure and genuine opium from the large poppies, commonly called or known by the name of Garden-poppies, the seeds of which I would advise to be sown the latter end of February, and again about the second week of March, in beds three feet and a half wide, well prepared with good rotten dung, and often turned and ploughed, in order to mix it well, and have it fine, either in small drills, three in each bed, in the manner fallads are sown; and when about two inches high, to thin them one foot apart, or otherwise to rear them in beds in the broad cast way, and thin them

to

to the same distance; and if the weather should prove wet at that time, those that are taken up may be transplanted; but I do not suppose that the transplanted ones will answer, as they have but one root, and require frequent waterings. Keep them free from weeds, they will grow well, and produce from four to ten heads, shewing large and different coloured flowers, which, when the leaves die away and drop off, the pods then being in a green state, is the proper time for extracting the opium, by making four small longitudinal incisions with a sharp-pointed knife, about one inch long, on one side only of the seed-pod, just through the scarf-skin, taking care not to cut to the seeds. Immediately on the incision being made, a milky fluid will issue out, which is the opium, and, being of a glutinous nature or substance, it will adhere to the bottom of the incision; but some are so luxuriant, that it will drop from the pod on the leaves underneath. The next day, if the weather should be fine, and a good deal of sunshine, the opium will be found a greyish substance, and some almost turning black. It is then

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to be scraped off the pods, and, if any, from the leaves, with the edge of a knife, or an instrument for the purpose, into pans or pots; and in a day or two, it will be of a proper consistence to make into a mass, and to be potted.

As soon as you have taken away all the opium from one side of the pod, then make incisions on the opposite side, and proceed in the same manner. The reason of my not making the incisions all round at the first, is, that you cannot so conveniently take away the opium; but every person, upon trial, will be the best judge.

Children may with ease be soon taught to make the incisions, and to take off the opium; so that the expence will be found exceedingly trifling. The small white seeds, in that state, will be found very sweet and pleasant, and may be eaten without the least danger; and it is the custom in the east, to carry a plate of them to the table, after dinner, with other fruits.

I intend, this year, to keep apart a small quantity of opium from each coloured poppy, to find out if any one, more than an-

other, produces a greater quantity, or of greater strength, and shall save seeds of each, to sow separately the next spring. I am of opinion, that numbers of inclosures, taken from hills in a south prospect, with a very little expence, may be brought into a proper state for the growth of poppies.

I should think, that an instrument may be made of a concave form, with four or five pointed lancets, about the twelfth or fourteenth part of an inch, to make the incisions at once, and likewise something of the rake kind, so that the three drills, which I have directed to be made in each bed, may be performed at the same time.

By a calculation which I have made, supposing one poppy growing in one square-foot of earth, and producing one grain of opium, more than fifty pounds will be collected from one statute-acre of land; but upon recollecting, that one poppy produces from three or four to ten heads, and in each head from six to ten incisions are made, and I am positive, from many of them, (I mean one incision), the last year I took away two or three grains; what must then be the produce?

duce? Opium is now twenty-two shillings the pound.

I am, &c.

JOHN BALL.

WILLITON, *2d June* 1795.

In a subsequent letter, Mr Ball states, that the experiment of transplanting did not succeed, not one plant coming to perfection. The pods should be about the size of a walnut before the incision is made. The dried heads from London, being three times as big, must afford much more opium.

In another subsequent letter, Mr Ball acquaints the Society, that double or semi-double poppies gave more than twice of what is collected from the single. One poppy, which had twenty-eight heads, afforded above thirty grains of opium. It was of the semi-double kind, and the opium was of a better quality than from single heads. The article closes with three letters of testimony, namely from Dr Latham, Dr Pearson, and Mr G. Wilson of Covent Garden, who all agree, that the English is at least equal in its efficacy to the best foreign opium.

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THE following deaths of distinguished Medical Practitioners have lately taken place.

Dr John de Loureiro, Member of the Royal Academy of Sciences at Lisbon. Dr Loureiro has been justly celebrated as the author of an important botanical work, *Flora Cochinchinensis, sistens plantas in regno Cochinchina nascentes, &c.* In that kingdom he resided for a considerable time; and he is said to have bestowed upwards of thirty years in preparing the above-mentioned work for publication.

Dr Flor. Jacob Voltelen, Professor of Medicine and Chemistry at Leyden, where he was justly celebrated as an eminent teacher. He died at Leyden, on the 2d of August 1795, in the forty-second year of his age.

Dr John Sibthorp, Regius Professor of Botany in the University of Oxford, who died at Bath, on the 7th of February 1796. Dr Sibthorp was indefatigable in his researches for new and rare plants; and in
order

order to collect them, he travelled twice into Turkey and Greece. The fatigues he underwent in his last tour are supposed to have ruined his constitution. He has, however, left behind him lasting monuments of his botanical abilities, and of his zeal for the advancement of that science. In 1794, he published a *Flora Oxoniensis*; and he has left an estate of three hundred pounds per annum to the University, in trust, for defraying the expence attending the publication of a *Flora Græca*, taken from specimens in his own valuable collection, and afterwards for other purposes tending to promote the study of Botany.

Dr Charles Webster, Fellow of the Royal College of Physicians of Edinburgh, and one of the physicians to the army. Dr Webster obtained the degree of Doctor of Medicine from the University of Edinburgh in 1777; and on that occasion published an ingenious Inaugural Dissertation, *De Vasorum Sanguiferorum Libramine*. He was a man of great learning, and amiable manners. He practised medicine for several years at Edinburgh. During that period, he officiated as one of the Physicians to the Pu-

blic Dispensary, where his exertions were highly useful in alleviating the calamities of those who had at once to struggle with poverty and disease. He read lectures on chemistry with much approbation: And he published several useful works, particularly one under the title of *Medicinæ Praxeos Systema*. But while he was thus assiduously exerting himself in the line of his profession, he fell into a bad state of health, which led him to take a journey to the continent of Europe: And after his return, imagining that his constitution might be benefited by the influence of a warm climate, he went out to the West Indies as physician to the army. But not long after his arrival at the island of St Vincent's, where he devoted a great part of his time to hospital-duty, he was seized with the yellow fever; and, after a few days illness, fell a victim to the disease, on the 5th of December 1795.

Dr Samuel Crumpe, Physician at Limerick in Ireland. Though Dr Crumpe died at an early period of life, yet he had obtained no small celebrity as an author, by the publication

publication of *An Inquiry into the Nature and Properties of Opium*; and of *An Essay on the Best Means of providing Employment for the People*: Which last Work was honoured with a prize medal by the Royal Irish Academy; and demonstrates the author to have been a humane man, an enlightened patriot, and a zealous friend to the general interests of mankind.

Dr William Turnbull, Physician to the Eastern Dispensary in London. Dr Turnbull removed from Wooler in Northumberland to London, about twenty-five years ago; and during that period he practised medicine in the metropolis, with great humanity and distinguished ability. He died, after a few days illness, on the 2d of May 1796, in the sixty-seventh year of his age.

Dr Alexander Eason, Physician in Manchester. Dr Eason was the author of some ingenious papers, published in the *Manchester Memoirs*, and of some important practical observations, which have been communicated to the public, through the channel of the *Edinburgh Medical Commentaries*. He died at Manchester, on the 2d of May 1796.

The Faculty of Medicine, of Columbia College at New York, have lately lost two of their members, by the death of Dr Samuel Nichol, Professor of the Practice of Physic, and Dr William Pitt Smith, Professor of the Materia Medica. Since the death of these gentlemen, it has been thought expedient to unite the Professorship of the Theory with that of the Practice of Medicine, and to unite the Botany with the Materia Medica. Accordingly, Dr William Hemersley, Professor of the Institutes of Medicine, has been elected to the joint Professorship of the Theory and Practice of Physic; and Dr David Hosack, Professor of Botany, has been elected to the joint Professorship of Botany and Materia Medica.

At Hanover, 7th October 1795, John George Zimmerman, author of the well-known Works on Dysentery, Solitude, National Pride, and Experience in Physic, by birth a Swiss. The highest degree of medical, literary, and personal merit, concurred in giving to this physician a more extended celebrity than perhaps to any of his profession during the present age. His Works will remain an everlasting proof of his philosophic

sophic spirit, after the recollection of the amiableness of his manners has descended with his friends to the grave. The adage, "*Minuit præsentia famam*," unfortunately so often verified, was with regard to him reversed. Melancholy, the effect of too severe study, and a painful chronic disease, long prevented him from fully enjoying the respect paid him by Princes, and the fruits of his well-earned fame.

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During the year 1796, Dr James Gasking of Plymouth, Dr Alexander Stewart of Perth, Sir Walter Farquhar, Bart. of London, Dr John Hutton Cooper of Stamford, Sir Alexander Douglas, Bart. of Dundee, Dr Thomas Charles Hope, Dr George Dickson, Dr Andrew Duncan jun. of Edinburgh, and Dr Andrew Keltie of Perth, have been admitted Fellows of the Royal College of Physicians of Edinburgh; and Mr James Bryce has been admitted a Fellow of the Royal College of Surgeons.

During

During the year 1796, the Reverend Sir Harry Moncrieff-Welwood, Bart. D. D. Colonel Alexander Dirom, F. R. S. Lond. Patrick Murray, Esq. of Ochtertyre, Advocate, and the Right Honourable Lord Fincastle, have been admitted resident members of the Royal Society of Edinburgh; and Andrew Berry, M. D. Madras, Richard Kirwan, Esq. Mark Augustus Piçter, Professor of Philosophy in the Academy of Geneva, M. P. Prevost, Honorary Professor in the Academy of Geneva, Dr Freer, Professor of Medicine in the University of Glasgow, Sir Henry Englefield, Bart. F. R. S. London, and Dr James Gasking, Physician at Plymouth, have been admitted non-resident members.

STATE

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STATE of the Thermometer, Barometer, and
Rain, during the year 1797, according to
Observations made about a mile from the
City of Edinburgh.

MONTH.	THERMOMETER.			BAROMETER.			RAIN inches & Decimals
	High. Deg.	Low Deg.	Med. Deg.	Highest inches	Lowest inches	Med. inches	
Jan.	47	9	29	30.20	28.96	29.8	2.950
Feb.	40	11	31	30.82	28.60	29.53	5.070
Mar.	50	11	37	30.40	29.0	29.63	1.500
April	57	34	45	30.50	29.00	29.55	1.930
May	65	36	50	30.22	29.25	29.81	4.115
June	66	41	53	30.17	29.20	29.68	4.230
July	72	44	56	30.17	29.28	29.70	2.840
Aug.	72	44	58	29.91	29.24	29.63	3.255
Sept.	72	36	58	30.25	29.30	29.60	0.735
Oct.	66	41	52	29.80	28.40	29.28	3.205
Nov.	52	25	40	30.41	28.67	29.82	4.200
Dec.	52	31	44	30.12	29.00	29.53	3.290
Whole Year, }	72	9	46	30.82	28.40	29.22	34.098

STATE

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STATE of the Thermometer, Barometer, and Rain, during the year 1797, according to Observations made at the Apartments of the Royal Society of London.

MONTH.	THERMOMETER.			BAROMETER.			RAIN.
	High. Deg.	Low. Deg.	Med. Deg.	Highest Inches.	Lowest Inches.	Med. Inches.	
Jan.	46	8	26	30.47	29.62	30.01	0.476
Feb.	51	25	36	30.68	29.04	29.60	1.225
Mar.	54	25	41	30.38	29.02	29.80	1.744
April	58	37	48	30.22	29.34	29.79	0.497
May	81	43	55	30.40	29.73	30.17	0.276
June	76	41	57	30.14	29.50	29.86	3.339
July	75	51	59	30.26	29.54	29.97	1.400
Aug.	78	53	64	30.31	29.62	29.97	1.856
Sept.	77	46	63	30.46	29.64	30.08	0.081
Oct.	67	44	55	30.10	29.16	29.66	2.539
Nov.	56	27	43	30.58	28.94	29.87	2.428
Dec.	55	36	46	30.39	29.41	29.97	0.973
Whole Year, }	81	8	49	30.68	28.94	29.90	16.864

SECT.

S E C T. IV.

LIST OF NEW BOOKS.

PHILOSOPHICAL Transactions of the Royal Society of London for the year 1795. 4to. London, 1795.

Transactions of the Society instituted at London for the Encouragement of Arts, Manufactures, and Commerce; with the Premiums offered in the year 1795. 8vo. London, 1795.

Memoirs of the Medical Society of London. Vol. IV. 8vo. London, 1795.

Letters and Papers on Agriculture, &c. By the Bath Society. Vol. VII. 8vo. London, 1795.

Transactions

Transactions of the Royal Irish Academy.
Vol. V. 4to. Dublin, 1795.

Preliminary Introduction to the art of
Sea-bathing. By J. Anderson, M. D. Lon-
don, 1795.

An Inaugural Differtation on the Apo-
plexy. By John Andrews. 8vo. Philadel-
phia, 1793.

Delineations of Exotic Plants in Kew Gar-
den. By T. Bauer.

The Elements of Medicine of John Brown,
M. D. Translated from the Latin; with
Comments and Illustrations by the Author.
A New Edition, revised and corrected, with
a Biographical Preface, by Thomas Beddoes,
M. D. 2 vols, 8vo. London, 1795.

A Meteorological Journal for the year
1795, kept in London. By W. Bent. 8vo.
London, 1796.

A Letter to the Clergy of the Church of
Scotland, on Domestic Inoculation. By Wil-
liam Brown, M. D. 8vo. Edinburgh, 1794.

An Account of the Yellow Fever; with a
Successful Method of Cure. By James Bryce,
Surgeon. 8vo. Edinburgh, 1796.

Observations concerning the Prevention
and

and Cure of the Venereal Disease. By W. Buchan, M. D. 8vo. London, 1796.

Observations on Pregnancy, and the Diseases of Children. By J. Clough. 8vo. London, 1796.

An Inaugural Essay on Inflammation. By John Redman Coxe. 8vo. Philadelphia, 1794.

Observations on the Nature and Theory of vision. By J. Crisp.

Zoonomia ; or, The laws of Organic Life, Vol. II. By Erasmus Darwin, M. D. F. R. S. 4to. London, 1796.

An Introduction to the Practice of Midwifery. By Thomas Denman. Vol. II. 8vo. London, 1795.

Medical Commentaries for 1795. By A. Duncan, M. D. 8vo. Edinburgh, 1796.

Observations respecting the Pulse. By W. Falconer, M. D. F. R. S. 8vo. London, 1796.

Medical Histories and Reflections. Vol. II. By John Ferriar, M. D. Physician at Manchester. 8vo. London, 1795.

Dialogues between a Pupil of the late
John

John Hunter and Jesse Foot. 8vo. London, 1795.

Essay on the Abuse of Spirituous Liquors. By A. Fothergill, M. D. 8vo. Bath, 1796.

Observations on the Mechanism of the Horse's foot. By S. Freeman, Esq.

On the History of Medicine, as far as it relates to the Profession of the Apothecary. By J. M. Good, Surgeon. 12mo. London, 1795.

A Pocket Conspectus of the New London and Edinburgh Pharmacopœias. By R. Graves, M. D. 8vo. London, 1796.

A System of Comparative Anatomy and Physiology. By B. Harwood, M. D. Professor of Anatomy in the University of Cambridge. 4to. Fasc. 1. with fifteen Tables. London, 1796.

Hints on the Chlorosis of Boarding-schools. 8vo. London, 1795.

Hints on the proposed Medical Reform. 8vo. London, 1796.

Hints respecting Human Dissections. 8vo. London, 1795.

VOL. I.

E e

Hints

Hints respecting the Distresses of the Poor.
8vo. London, 1795.

A Short Account of the Origin, Symptoms, and most approved Method of treating the Putrid Bilious Fever, commonly called the Black Vomit, which appeared in the City of Havanna, with the utmost violence, in the months of June, July, and August, 1794. By John Holliday, Surgeon.
8vo. London, 1795.

Practical Observations on the Treatment of Strictures in the Urethra. By Everard Home, Surgeon to St George's Hospital.
8vo. London, 1795.

Hortus Botanicus Gipporicensis. The Plants growing in Dr Coytes's Garden at Ipswich. 8vo.

Syllabus of the Course of Lectures on Botany, delivered in Columbia College. By David Hofack, M. D. & P. 8vo. New York, 1795.

Outlines of Agriculture. By D. Hunter, M. D.

A Complete Dictionary of Farriery. By J. Hunter. 8vo. London.

Theory

Theory of the Earth. By James Hutton, M. D. 2 vols 8vo. London.

An Inaugural Dissertation on the Putrid Ulcerous Sore Throat. By Thomas Johnson. 8vo. Philadelphia, 1793.

Observations on the Hooping cough, shewing that the Practice of giving Emetics is hurtful. By J. G. Jones. London, 1795.

Remarks on Stones said to have fallen from the Clouds. By E. King. 4to. London, 1796.

The Manures most applicable to various Soils. By R. Kirwan, Esq. 8vo.

A Dictionary of Surgery. By B. Lara. 12mo. London, 1796.

The Birds of Great Britain. Elegantly painted from Nature ; with Descriptions in French and English. By W. Lewin, F. L. S. 4to. Vol. I. London, 1795.

The Butterflies of Great Britain. By W. Lewin, F. L. S. 4to. London, 1795.

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miæ Edinburgenæ Præfecti; necnon am-
plissimi Senatus Academiæ consensu, et no-
bilissimæ Facultatis Medicæ decreto pro gra-
du Doctorali, summisque in Medicina ho-
noribus, rite et legitime consequendis, eru-
ditorum examini subjecerunt, ad diem 24tum
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MEDICINE, 1796. . 461

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ad diem 12mum Septembris 1796.

Samuel Adams, Hibernus, *De Phthisi Pulmonali.*

Jacobus Bannerman, Scotus, *De Dysenteria.*

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Savagefius Donovan, Hibernus, *De Cyananche Maligna.*

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Jacobus

Jacobus Kirby, Hibernus, *De Typho.*

Robertus Lidderdale, Scotus, *De Imaginatione.*

Dominicus Lynch, Barbadenfis, *De Podagra.*

Franciscus Macartney, Hibernus, *De Variola.*

Petrus M'Loughlin, Hibernus, *De Oculo Humano.*

Henricus Nibbs, ex Insula Dominicanfi, *De Variola.*

Franciscus Peyton, Virginienfis, *De Dysenteria.*

Thomas Williamfon Routh, Anglus, *De Typho Petechiali.*

Jacobus Sheehy, Hibernus, *De Hydrocephalo Interno.*

Joannes Yelloly, Anglus, *De Cynanche Tracheali.*

INDEX.



I N D E X

A	Page
A IR-BLADDER of the sword-fish, account of the gas contained in it, - - -	393
Angina pectoris, dissertatio de, - - -	198
—— polyposa, essay on, - - -	30
Arneman, Dr, intended publication of plates of the bones, - - -	413
Asthma acutum periodicum, essay on, -	30

B

Ball, Mr John, method of preparing British opium,	414
Banks, Sir Joseph, letter to, respecting the internal use of nitric acid, - - -	373
Beddoes, Dr Thomas, observations on the medicinal use of facitious airs, - - -	245
Bell, Mr John, intended publication on the anatomy of the heart and blood-vessels, -	409
Biliary obstructions from calculi, cured by salivation,	279
Borthwick, Dr George, history of a case terminating fatally from swallowing a plumb-stone, -	349
Brain	

	Pag.
Brain sustaining a considerable injury without a fatal consequence, - - -	358
Brandis, Dr J. D. upon the use of the lukewarm bath in fevers, - - -	73
Brodbelt, Dr Francis, account of the gas contained in the air-bladder of the Sword-fish, -	393
Bronchocele, essay on, - - -	17
Bryce, Mr James, account of the yellow fever,	116

C

Calomel successfully employed in constipation,	310
Constipation, obstinate case of, cured by calomel,	310
Consumption, Dr Girtanner's observations on,	53
Cretinism, essay on, - - - -	17
Crichton, Dr Andrew, remarkable case of cynanche,	318
Crumpe, Dr Samuel, death of, -	423
Cynanche, case of, terminating favourably by furious delirium, - - - -	318

D

Darwin, Dr Erasmus, Zoonomia, - -	209
Davidson, Dr W. observations on the pulmonary system, - - -	149
Diabetes, singular case of, -	343
——— cured by the internal use of nitrous acid,	382
Dysentery, remarks on, - - -	44

Eaton,

I N D E X.

465

Page

E

Eaton, Dr Alexander, death of, - -	423
Epidemic fever of Jamaica, singular case of,	328
-----, observations on, -	334

F

Factitious airs, observations on, - -	245
Fevers, use of lukewarm bath in, - -	73
Fischer, Dr C. E. medical and surgical observations on London, - - - -	62
Foderè, essay on bronchocele and cretinism, -	17
Fontaine, F. L. surgical and medical treatises respect- ing Poland, - - - -	I

G

Gibbons, Dr Thomas, cases of biliary obstruction cured by salivation, - - -	279
Girtanner, Dr, experiments and observations on Beddoes's new method of curing consumption,	53
-----, intended publication respecting bo- dies hitherto considered as simple, -	411
Grapengieffer, Dr Car. Jo. de hydrope plethorico,	179
Gratiola, effects of, in madness, - - -	41

H

Hamilton, Dr James, junior, select cases in mid- wifery, - - - -	426
-----, observations on the seats and causes of diseases, - - - -	406

Vol. I.

G g

Harveian

	Page
Harveian Society of Edinburgh, their prize-questions, - - -	413
Hofack, Dr David, cure of hydrocele by injection, -	306
-----, case of obstinate constipation cured by calomel, - - -	310
Hufeland, C. W. remarks on dysentery, -	44
Hydrocele, cure of, by injection, - -	306
Hydrope plethorica, dissertatio de, - -	176
I	
Iron-nail, singular symptoms from swallowing one, -	371
J	
Jail-fever at Winchester, description of, - -	81
K	
Kellie, Mr George, account of the alimentary canal of the shark, - - -	395
-----, intended publication on the effects of compression by the tourniquet, -	409
Kennedy, Mr John, account of the effects of the tonic-bark, - - -	387
L	
Lapidis fuilli usus in lithiasis renali, - -	187
Liljeblad, Dr Samuel, de usu lapidis fuilli in lithiasis renali, - - -	187
Liver, obstruction of, removed by the internal use of nitrous acid, - - -	375
Loureiro,	

I N D E X. 467

	Page
Loureiro, Dr John, death of, - - -	421
Lukewarm bath, use in fevers, -	73

M

Maclarty, Dr, singular case of the epidemic fever of Jamaica, - - -	328
Madness, effects of gratiola in, - -	41
Midwifery, select cases in, - -	266

N

Nitrous acid, its effects in destroying contagion, - - -	163
———, effects from the internal use of, - - -	375
Nux vomica, its use in dysentery, - -	44

O

Organic life, laws of, - - -	209
------------------------------	-----

P

Paterfon, Mr D. a treatise on scurvy, -	133
Pearson, Dr Richard, recommendation of the vapour of æther in phthisis, - -	401
Phthisis pulmonalis cured by the vapour of vitriolic æther, - - - - -	401
Plumb-stone, case terminating fatally from swallow- ing one, - - - -	349
Pneumatic medicine, observations on, - -	392
Poland, medical treatise respecting, - -	1
Pulmonary system, observations on, - -	149

Reil,

	Page
R	
Reil, Dr Jo. Christ. memorabilia clinica, -	159
Royal Academy of Berlin, their prize-questions, -	413

S

Salivation, biliary obstructions from calculi, cured by, -	279
——— from the internal use of nitrous acid, -	381
Schmidt, Dr Er. Fred. de angina pectoris, -	198
Scott, Dr John, cases of injury to the brain terminating in recovery, - - -	358
Scott, Mr W. account of effects from the internal use of nitrous acid, - - -	375
Scurvy, effectual method of cure of, -	133
Shark, account of its alimentary canal, -	395
Shee, Dr Peter, singular case of diabetes, -	343
Sibthorp, Dr John, death of, - -	421
Smyth, Dr James Carmichael, description of the Jail-fever at Winchester, - -	81
———, account of an experiment with nitrous acid, for destroying contagion, -	103
Sword-fish, account of the gas contained in its air-bladder, - - -	393
Syphilis cured by the internal use of nitrous acid, -	383

T

Todd, Dr John, observations on the epidemic fever of Jamaica, - - -	334
Toon-bark, account of its properties, - -	389
Trotter,	

I N D E X.

469

Page

Trotter, Dr, intended publication on the diseases of	
seamen, - - - -	407
Turnbull, Dr William, death of, -	428
Tytler, Dr, intended publication on the art of	
nursing children, - -	408

V

Vitriolic æther, vapour of, its use in phthisis,	401
Voltelen, Dr Flor. death of, - -	421

W

Watt, Mr James, observations on factitious airs,	248
Webster, Dr Charles, death of, - -	422
Wichmann on the angina polyposa, -	30
Wilson, Dr Philip Robarts, singular symptoms from	
swallowing an iron nail, - -	371
Withering, Dr, observations on pneumatic medicine,	392

Y

Yellow fever, account of, - - -	116
---------------------------------	-----

Z

Zimmerman, J. G. death of, - -	425
Zoonomia, or laws of organic life, -	209

THE HISTORY OF THE

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